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ABSTRACT

The purpose of this program is to reduce dissimilarity between home and school for low-income children by renewing home-school linkage. The program is designed to achieve this goal by training, installing, and utilizing parents as linkage agents. Their functions include serving as sources of information about their children, as informants, as participant-observers, as participant-developers/evaluators of educational materials, and engaging in dialogue with teachers of their children. Program work is divided into five different components: Parental-Inclusion; Home-School Similarity; Teacher Training; Program Planning and Direction; and Application and Utilization. The strategy selected by the program includes needs analysis, information collection and organization, problem clarification, and process-and-product-development in areas where feasibility tests and pilot studies indicate developmental work is justified. The program produces a number of knowledge products and the preliminary form of certain developmental products. Products are used (a) to design and implement the role of the linkage agent, and (b) to assist school personnel in designing and implementing appropriate alternative environments which will help low-income children develop in a manner comparable to their middle-class counterparts. Program work and products are evaluated in terms of their ability to provide needed and valid information in a usable format, and their ability to enable educators to design appropriate learning environments for low-income children. (Author/JM)

ED 090357

BASIC PROGRAM PLAN

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Renewing Home-School Linkage

A PROGRAM OF DIVISION IV

March 1972

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FAR WEST LABORATORY FOR EDUCATIONAL RESEARCH AND DEVELOPMENT
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Underlying the work of the Far West Laboratory for Educational Research and Development is the premise that all schools must, somehow, generate a capacity for self-renewal -- in order that children may have more and better opportunities to learn. If this assumption proves accurate, the primary task of all educational institutions in the 1970's will be to learn to adapt to change **per se**.

We intend to join forces with educators, parents and children to develop, now, effective mechanisms that will facilitate change in all school operations. Yet self-renewal -- through research and development -- is, by nature, a long-range process. If this Laboratory should allow its energies to be diverted to provide instant "relief" in patchwork fashion, not only will our highly-focused product development programs fail, but the intended "instant" solutions are likely to be fragmentary and short-lived.

We are committed to an educational development center that is now being planned for the 1970's in San Francisco. All those dedicated to educational self-renewal will be able to work together economically in this center so as to achieve common objectives. With this beginning, we are addressing ourselves to one of the vital challenges posed by Commissioner Allen -- "to change attitudes, to throw off inhibiting tradition and to be willing to experiment and explore new methods of directions."

John K. Hemphill

John K. Hemphill
Laboratory Director

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FOREWARD

Division IV of the Far West Laboratory for Educational Research and Development has a history which goes back at least five years. In 1966, the Laboratory explored the possibility of mounting a program with the objective of "full education." Further study indicated the program was not feasible. In 1967, the Laboratory disseminated a set of handbooks for educators. This approach was discontinued, however, because it did not lead to a Basic Program Plan with clearly defined intermediate objectives, and because the Laboratory had limited funds to spend on similar projects.

In 1968, the Laboratory involved itself in developing a prototype TV course for teachers in "ghetto" schools, consisting of five one-half hour programs on KQED-TV (a local educational TV station). These programs were accompanied by support materials for teachers and discussion leaders to help teachers explore the consequences of their various behaviors. This prototype series was further developed into "Confrontations"--a TV workshop in human relations which is now distributed nationally by the Anti-Defamation League of B'nai B'rith, 315 Lexington Avenue, New York, N.Y. 10016.

In December of 1968, during a meeting of the Laboratory Executive Panel, previous Laboratory efforts in this area were discussed. It was at this meeting that the Laboratory Director proposed a program in multi-cultural education (or some variant of it). His proposal received mixed response, but generally, the response was, in a word, cautious. Later in the meeting, it was indicated that such a program should recognize: (a) the need to involve local people in school affairs, (b) the need for getting local people into the teacher activity, and (c) the need for developing new materials to teach the facts of subcultures. Prospective products and potential strategies were also discussed at that meeting.

In 1968, the Laboratory Executive Panel and the Board of Directors approved in principal a set of objectives and preliminary plans for such a program. In 1969, a Program Advisory Committee was formed for the purpose of identifying crucial needs and problems in the program area, suggesting priorities for the direction of Laboratory effort, and advising program staff of various approaches to the solution to some of these problems. In April 1970, the present Program Director was appointed to head the Multi-Ethnic Education Program, and in December 1970, he was charged with the responsibility of revising the Basic Program Plan. Over a period of six months and five drafts, the following "basic" revisions were made:

- the Cohen relational-analytic hypothesis rationale was supplanted by a culturally-specific educational environment rationale;
- the Program was expanded from three to five components which organize information collection and implementation, planning, and application;
- the paraprofessional (which we refer to as preprofessional) development effort was separated from the second component and expanded into development of a completely new parental role--that of the linkage agent;
- the component focused on learning environments was expanded and strenthened in order to gain information about home environments of low-income children for use in restructuring school environments.

The Basic Program Plan which we are proposing at this time is a function of the history described above in that it:

1. Meets the December 1968 criteria of the Laboratory's Executive Panel;
2. Builds on our previous concern for preprofessional training, parental involvement, and child study;
3. Essentially calls for a hiatus with respect to developing culturally specific curricular materials until we develop a valid knowledge

base about the ethnic populations with which we are working;

4. Extends our concern about the need for non-compensatory educational strategies.

SUMMARY DATA SHEET

Institution code: R 3 6 F

Program code: R 3 6 F 7 9 0

Date prepared: March 1972

Name and location of Institution:

Far West Laboratory For
Educational Research and
Development
1 Garden Circle
Berkeley, California 94705

Director:

John K. Hemphill

Title of Program:

Renewing Home-School Linkage

Staff member in charge:

James A. Johnson, Jr.

Start and end dates of Program: December 1972 to December 1977

Costs:

	DRDR Basic contract	Other Federal	Non-Federal	Local contribution	Total
Investment thru 11/30/72	538,000	-	-	-	538,000
Projected costs	3,633,664	-	450,000	-	4,157,664
FY 1973 costs	487,102	-	40,000	-	527,102

PROGRAM REGISTER

Program code: R 3 6 F 7 D 0

Institution: FWLERD Date prepared: March 1972

Program title: Renewing Home-School Linkage

Code no.	Title of component or activity	Person in charge	Start and end date
R36F7D0	Parental-Inclusion Component	Russell	12/72-3/77
R36F7E0	Home-School Similarity Component	Johnson	12/72-12/76
R36F7F0	Teacher Training Component	Johnson	12/72-12/77
R36F7G0	Program Planning and Direction Component	Johnson	12/72-12/76
R36F7H0	Application and Utilization Component	Johnson	12/73-12/77

PROGRAM RESUME

Program code: R 3 6 F 7 0 0

Institution: FWLERD

Date Prepared: March 1972

Program title: Renewing Home-School Linkage

Begin and end dates of (proposed) Program: 12/72 - 12/77

Staff member in charge: James A. Johnson, Jr.

Resume:

The purpose of this program is to reduce dissimilarity between home and school for low-income children by renewing home-school linkage. The program will achieve this goal by training, installing, and utilizing parents as linkage agents. Their functions will include serving as sources of information about their children, as informants, as participant-observers, as participant-developers/evaluators of educational materials, and engaging in dialogue with teachers of their children.

Program work is divided into five different components: Parental-Inclusion; Home-School Similarity; Teacher Training; Program Planning and Direction; and Application and Utilization. The strategy selected by the program includes needs analysis, information collection and organization, problem clarification, and process-and product-development in areas where feasibility tests and pilot studies indicate developmental work is justified.

The program will emphasize the collection, organization, and interpretation of information about low-income children's needs and characteristics, and the preceptions of low-income parents and other educational stakeholders about the role of parents in our schools. When a sufficient knowledge base is developed, developmental work will proceed on products and processes which appear essential to improving educational opportunities for low-income children.

The program will produce a number of knowledge products and the preliminary form of certain developmental products. Products will be used (a) to design and implement the role of the linkage agent and (b) to assist school personnel in designing and implementing appropriate alternative learning environments which will help low-income children develop in a manner comparable to their middle-calss counterparts. Program work and products will be evaluated in terms of their ability to provide needed and valid information in a usable format, and their ability to enable educators to design appropriate learning environments for low-income children.

Program products should be useful to school districts, educational developers, and planners in that they will provide the knowledge base which is needed in order to introduce relevant and culturally appropriate processes and products into our educational system.

COMPONENT RESUME

Component Code: R 3 6 F 7 D 0

Institution: FWLERD Date prepared: March 1972

Program title: Renewing Home-School Linkage Program

Component title: Parental-Inclusion Component

Begin and end dates of (proposed) Component 12/72 - 12/77

Staff member in charge: Tanya Russell

Resume:

The Parental Inclusion Component will focus on creating the means by which the unique knowledge that parents possess about their children can be used most effectively by school systems. The creation of roles through which parents can affect the decision-making processes of school systems, evaluate the appropriateness of educational materials in terms of the ethnic background of their children, and contribute to the knowledge bases of educators and educational developers is crucial to the improvement of children's opportunities to learn.

In creating and installing the parental role of linkage agent, the work of this component will have to combine both the most effective means of eliciting the unique knowledge parents possess about their children with the most effective means of implementing this knowledge to improve educational opportunities for low-income children.

This component's work will also be directed toward developing a model preprofessional training program for linkage agents. This will necessitate defining competencies appropriate for the role of linkage agent, identifying institutions of higher learning that are implementing innovative parental programs, and making cooperative agreements with educational institutions for the credentialing of linkage agents.

The last phase of work in this component is the Cultural Appropriateness Symposium (CULAS) which is a procedure to involve parents in evaluating the appropriateness of educational products for use with children of diverse cultural heritages. Parents invited to gather to discuss their children's education; they will be presented with educational products with specified objectives; they will be asked to evaluate the appropriateness of these products for their children. The expected outcome is a set of parent-generated criteria for evaluating and designing educational materials.

COMPONENT RESUME

Component Code: R 3 6 F 7 5 0

Institution: FWLERD Date prepared: March, 1972

Program title: Renewing Home-School Linkage Program

Component title: Home-School Similarity

Begin and end dates of (proposed) Component: 12/72 - 12/76

Staff member in charge: James A. Johnson, Jr.

Resume:

Behavior is regulated and expectancies developed in the home situation. The child learns to appropriately respond to social, verbal, and gestural cues in his home environment. Though this value-belief system underlying behavior is appropriate at home, for many children it comes into conflict with the expectations of the school environment. This conflict can have a negative effect on further learning. To assess the value of particular learning activities, educators must be cognizant of the values and expectations underlying the child's behavior and the degree to which it conflicts with expectations placed on the child by the school.

Conflicts may arise out of home-school divergencies in behavior management (i.e., verbal labels indicating pleasure and displeasure), directional and informational expressive styles, the range of roles that children are allowed to play, and problem-solving strategies.

Home-School Differences Scales will be developed to determine the aspects of the school environment which contrast with the children's home environment. It is expected that the lack of consistency between home and school environments will correlate with achievement and control beliefs. This information will be disseminated to educators in ways that they may utilize to restructure the learning environment.

COMPONENT RESUME

Component Code: R 3 6 F 7 F 0

Institution: FWLERD Date prepared: March 1972

Program title: Renewing Home-School Linkage Program

Component title: Teacher Training Component

Begin and end dates of (proposed) Component: 12/72 - 12/77

Staff member in charge: James A. Johnson, Jr.

Resume:

Presently under development within this program is the Social Studies Core Curriculum Ensemble consisting of a teacher monograph, four social studies units of materials culturally specific to four groups of low-income ethnic-minority children, and a supplementary book list. Work in this component will focus on developing a teacher training manual to accompany this ensemble; preliminary, main, and operational field-testing and revising of the Ensemble; and developing inservice training modules to help teachers interact effectively with linkage agents.

In order for teachers to work effectively with the new parental role of linkage agent and to realize maximum benefit for their students from the materials in the Social Studies Ensemble, development work on teacher training modules will have the following points of emphasis: (a) the teacher's knowledge and understanding of the contributions and life styles of various ethnic, cultural, and economic groups; (b) the teacher's ability to recognize and deal with dehumanizing biases, discrimination, and prejudices; and (c) the teacher's ability to create learning environments which promote self-esteem and positive interpersonal relationships.

COMPONENT RESUME

Component Code: R 3 6 F 7 G C

Institution: FWLERD Date prepared: March 1972

Program title: Renewing Home-School Linkage Program

Component Title: Program Planning and Direction Component

Begin and end dates of (proposed) Component: 12/72 to 12/77

Staff member in charge: James A. Johnson, Jr.

Resume:

Work undertaken as part of this component has the purpose of (a) facilitating program work in the other components, (b) integrating planning into program work, and (c) maintaining relationships with other programs of the Laboratory.

Work will be organized into the following areas: long-range program planning; needs analysis and special studies; Program Advisory Committee; component relationships; field site liaison; program review and evaluation; special reports of USOE; and program staff competency development.

COMPONENT RESUME

Component Code: R 3 6 F 7 H 0

Institution: FWLERD Date prepared: March 1972

Program title: Renewing Home-School Linkage Program

Component title: Application and Utilization Component

Begin and end dates of (proposed) Component: 12/73 - 12/77

Staff member in charge: James A. Johnson, Jr.

Resume:

In order to achieve maximum dissemination and utilization, dissemination planning will begin prior to undertaking product development work. This division recognizes that such planning is a strategic milestone in the transition from knowledge to produce. Studies will be conducted in each component to determine (a) the potential user populations, (b) the most appealing and useful formats, (c) the most cost/effective form for the product, and (d) alternative development plans that take these considerations of utilization into account.

Simultaneously with the main field test stage of the Laboratory's development cycle, product dissemination work will begin as the joint responsibility of this program's staff and the staff of the Utilization Division. Major consideration will be: timing, production and handling, marketing, coordination, coordinator training, and cost/effectiveness.

BASIC PROGRAM PLAN FOR THE RENEWING HOME-SCHOOL LINKAGE PROGRAM

Introduction

The major goal of the Far West Laboratory for Educational Research and Development is to provide better opportunities for children to learn. Today, educational processes in the United States are being increasingly shaped and influenced by economic, political, and social forces. More attention, therefore, must be given to defining the nature of these "opportunities to learn" in order to guarantee that the educational processes are providing the desired educational opportunities for all of our children.

Elsewhere (Appendix A: Johnson et al., 1971, pp. 51-52) we have noted that for an "opportunity" to be real, it must meet, at a minimum, the following criteria:

1. the "opportunity" must be positioned in such a way that it can be perceived;
2. the option of taking or not taking advantage of the "opportunity" must, in fact, exist without prejudice;
3. the cost of taking advantage of the "opportunity" must be perceived as reasonable;
4. the "opportunity" must be perceived by the individual as relevant to his needs, goals, lifestyle, and experience.

Thus, educational opportunities must be carefully planned and designed in order to meet these criteria for children of all groups, particularly those whose experience and background are different from that of the majority.

Certain skills, knowledge, and competencies exist in the repertoire of students as a result of prior experience. Before exposure to formal education, these experiences occur largely in the family, the peer group, and the neighborhood. These experiences of young children, which result from interactions among them, their parents, and significant others are shaped largely by the child-rearing practices of the parenting adults. Child-rearing practices are heavily influenced by culture, ethnicity, and life style, and by the manner in which the parents' experience has been affected by societal perceptions and treatments that impinge differentially upon American citizens who are not native born, of native parentage, white, Anglo-Saxon, and middle-class (referred to below as low-income peoples).

Many low-income children, upon entering school, find that salient features of the school context are at variance with the context in which they have been reared and the context to which they have become accustomed. The dissimilarity between these two important contexts, in many instances, impedes the low-income child's growth and development. Thus, links need to be re-established between the homes and schools of low-income children. We believe that this objective can be realized by creating and installing parental roles and functions which are carefully planned and designed, and properly understood and introduced.

We contend that the total reduction of dissimilarity between the home environment and the learning environment of low-income children would reconnect these two important contexts which transmit skills, knowledge, and competencies to children and which highly influence their future growth and development. Further, it is our contention that if the most influential agents in these two environments--the teacher and the parent--are to effect reconnection, it must be by design, rather than by chance. Thus, the major goal of this program is to reconnect home and school by extending the influence of low-income parents on the schools in a constructive, well-planned, and productive way.

Needs

In planning program work in order to achieve our goal, we have identified a number of areas of need, including:

1. A need for understanding the skills, knowledge, and competencies that a low-income child brings to the learning situation and their importance to the child's future development.
2. A need for school environments that are consistent with the home environments of the students;
3. A need for appropriate and effective measures of the low-income child's skills and knowledge;
4. A need for instructional programs which build on the experience base of the low-income child;
5. A need for competent personnel in the school situation, including teachers equipped to meet the needs of low-income children, and parents equipped to function effectively in the school.

These major areas of need are discussed below.

Need for Understanding Experience Base of Low-Income Children

As a child grows and develops, he acquires an experience base--a relatively stable set of codes, values, skills, information, beliefs, and behaviors which he uses when interpreting and interacting with his environment. What the child notices about the environment, how he interprets what is happening around him, what particular things meet his needs, how he expresses himself, how he approaches problems, the language he speaks, the non-verbal cues to which he is sensitive, are all components of his experience base.

A child develops his experience base in the context of his physical surroundings and his social and cultural context as mediated or interpreted through the behavior of the significant others (e.g., parents, parenting adults, or others) whom he encounters. This environment provides the raw data from which the child derives the content of his experience base, and the "yardstick" by which the newly acquired information is evaluated.

The experience base is an extremely important parameter of his further learning. It is a frame of reference for collecting and interpreting data as well as the basic blocks for building more complex systems. The child's experience base facilitates further learning which is consistent with or builds upon existing knowledge, and it interferes with learning competing skills, codes, and behavior which are inconsistent with the experience base. It is well known, for example, that in learning a second language, the learner seldom achieves the degree of proficiency that he did in learning his mother tongue. Developing proficiency in a second language is difficult because the perception of the learning stimuli as well as the means of producing the learned behavior are programmed, so to speak, to accommodate the first learned language.

The child's learning tools are most easily applied to new information and/or skills that are presented in language, settings, behavioral modes, and sociocultural contexts that are familiar to him. Unfamiliar contexts and/or media usually must be mastered before the information or skills which are presented in them can be learned.

When a child is assessed in terms of a sociocultural context which is inconsistent with his home environment, he will obviously be less proficient than his classmates whose experience bases have been developed in environments that are reflected in the evaluative context. Typically, children in such situations are thought to have deficient, bizarre, or even offensive styles of speaking and thinking, rather than different, though equally valid, styles.

Instead of receiving support while learning in the new environment, the child receives negative reinforcement.

There is a need, therefore, to obtain information about the characteristics of the experience bases of low-income children of various ethnic minority backgrounds in order to provide educators with the tools and foundations they need to generate appropriate learning environments.

Need for Environmental Consistency

While the experience base has a relatively stable core, the environment continues to affect its development and maintenance in vital ways. The child's behavior is continually being reinforced and reacted to on the basis of the physical aspects of his environment and the sociocultural knowledge that those around him have and impart. All things being equal, if he is consistently exposed to a given knowledge and setting, he will continue to increase his proficiency in that context. If, however, the child comes into continuous contact with individuals who systematically respond to him in terms of different sociocultural patterns, some of the child's existing experience base is rendered less effective, less meaningful, and/or less usable. He is no longer positively reinforced for mastery, but rather he is rewarded for learning alternative codes, skills, and information.

The stresses of environmental inconsistency are particularly acute for a child who is exposed first to one environment and then to another. His problems stem from efforts to adjust to the new environment, and to maintain mastery of his home environment when faced with the interference of his new behaviors and knowledge. A child, for example, may be rewarded in a non-home environment for a certain behavior and punished for it in the home context or vice versa.

Does the child accept the reinforcement of one environment and reject the other, or does he develop a double set of values which leaves him to some extent an alien in both contexts?

Academic learning environments of today appear to be most consistent with the home environment of the middle-class white child (Burger, 1963; Fuchs, 1967; Fantini & Weinstein, 1968; Ryan, 1971). Dimensions of learning environments such as the ordering of time and space; ethics; valued social relationships; artifacts and other physical phenomena; the degree of control over the environment which is encouraged or tolerated on the part of the children; weighted values of cognitive, affective, and psychomotor behavior; cultural norms; the strategies and skills which are valued; children's expectations about how their behavior will be managed; what roles children play in decision-making and so forth are highly consistent with the white middle-class child's prior experience.

The low-income child, on the other hand, faces a very different situation. He spends his early years in home environments which are often very different from the white middle-class home environment (Becker, 1961; Burger, 1963; Fuchs, 1967; Fantini & Weinstein, 1968; Cohen, 1969; Graves, 1970; Young, 1970; Cole, 1971; Metzger, 1971). When the low-income child begins school, he abruptly encounters reinforcements and reactions based on socio-cultural and linguistic patterns that are dissimilar to his own. (Examples of areas of culture-conflict between home and school are described in Appendix B: Johnson et al., 1972; Fuchs, 1967; Fantini & Weinstein, 1968.) However, the learning activities provided for him are the same as those provided for white middle-class children; therefore, the learning activities fail to utilize some of the skills and strategies that the low-income child has acquired, and they tend to conflict with his expectations about behavior.*

Exposure to inconsistent environments, as we have theorized above, delays or impedes learning in the formal school environment and creates a value conflict that poses an agonizing, if not crippling, choice for the child. By creating inconsistent environments, the educational system virtually guarantees that it will not fulfill its purposes and, in fact, inhibits instead of facilitates the development of low-income students.

It follows, then, that the degree to which learning environments in which low-income children are educated incorporate relevant features of their home environments is predictive of the extent to which those children will experience success in the learning environment. Accordingly, the need exists to reduce any dissimilarity between the home and school environments of low-income children.

Need for Understanding of Locus of Control Beliefs

Rejection of the child's experience base, his home-learned behavior, his attempts, and himself tend to encourage feelings of alienation and the use of defensive mechanisms. The child becomes more proficient at defending himself against the negative evaluations he encounters, but, unfortunately, he is usually decelerated in mastering the behavior and skills valued in the new environment. If the new environment is radically different, the child may have considerable difficulty in interpreting it at all. Feedback may appear to be generally negative or hostile rather than informative, and the child may feel powerless to incluence what happens to him. Feelings of lack of influence over the environment inhibit learning.

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*In a small pilot study (Home-School Similarity Component - Phase I), we observed urban Black children from low-income families in their home and school environments. As hypothesized, numerous dissimilarities between the home and school were obvious (for example, in adult's means of managing behavior of the child, there was no overlap!) and as hypothesized, the children received negative reinforcement from home-learned behavior in the school and vice versa.

Existing research (Franklin, 1963; Efran, 1963; Crandall et al., 1962; Crandall et al., 1965; Cellura, 1963; Coleman et al., 1966) indicates that locus of control beliefs are directly correlated with school achievement and achievement striving. Students who believe that they can influence what happens to them tend to be more successful in school than those students who believe that they have little or no control over reinforcements.

From studies of specific situations, it appears that control beliefs significantly affect what an individual learns. Briefly stated, the less an individual believes that his behavior has some relation to the outcome of a situation, (a) the less perceptive he will be concerning potential reinforcements available in the situation (Lefcourt, 1967); (b) the less likely he will be to acquire information about the situation (Phares, 1957; James, 1957; Phares, 1962; Seeman & Evans, 1962; Holden & Rotter, 1962; Seeman, 1963); and (c) the less he will tend to engage in instrumental behavior with relation to the situation (Gore & Rotter, 1963; Seeman, 1964). It is not difficult to understand why such a student might tend toward low achievement.

A study (Bartel et al., 1970) of lower- and middle-class children in grades 1, 2, 4, and 6 revealed that the locus of control scores of the lower-class children were not significantly different from the scores of middle-class children when the children entered school, but that by the fourth grade, the scores were significantly different at the .05 level, and by the sixth grade, at the .01 level. Researchers interpret the data to mean that the school experience of lower-class children tends to foster the development of externality (i.e., forces not under their control), while the school experience of middle-class children tends to foster the development of internality (i.e., forces under their control).

The implication of the research on locus of control and its relation to achievement and learning is that schools which facilitate external beliefs instead of internal beliefs *invite* low achievement among their pupils. In order to increase the opportunity for learning, learning situations should be structured to facilitate equally the development of internal beliefs about the learning environment.

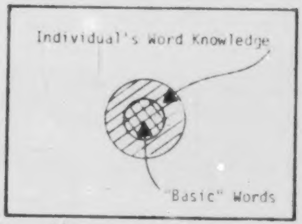
There is a need, therefore, for information about (a) the nature of the locus of control variable and its relation to learning, and (b) alternative programs and strategies which tend to bring about positive and eliminate negative learning conditions.

Need for Measures Appropriate for Low-Income Child

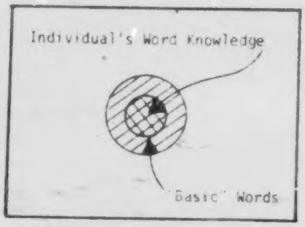
The skills and knowledge within the experience base of a child when he enters school usually position him within an instructional program. However, the use of "standard" instruments based on reading achievement and the ability to communicate often introduces systematic errors in assessing the skill development of ethnically different children (Labov, 1970; Coffman, 1965; and Anastasi, 1964). Similarly, selection and sequencing of instructional materials in the classroom are often based on the reading level of the materials. The evaluation of verbal skills and reading achievement becomes crucial in placing a child in an instructional program, and the appropriateness of that evaluation, in turn, determines the appropriateness of the instructional program for the child.

Language development, reading level of reading test passages, and readability of instructional materials are often determined by means of readability formulas. These formulas use basic word lists that supposedly contain well-known words, i.e., words that are common to the experience bases of a large number of individuals. Basic word lists are usually compiled on the basis of frequency of occurrence in reading materials (Thorndike & Lorge List, 1944; Buckingham-Dolch, 1936; Gates, 1935; Rinsland, 1945); frequency of oral usage (International Kindergarten Union List, Horn et al., 1928); sight recognition (Dale 3,000 Word List, Dale & Chall, 1948; Dolch, 1950); or some combination of these procedures (Dale Easy Word List, 1931). Usually, the population for which readability is being assessed is characterized only by educational level.

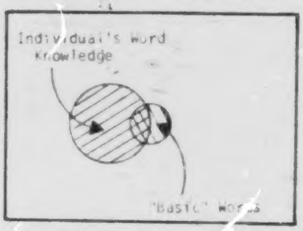
"Basic word lists" are valid only to the extent that they truly do represent commonly known words and the basic core of words that an individual is likely to know. If represented with Venn diagrams, the following must be the case.


Individual's Word Knowledge
"Basic" Words

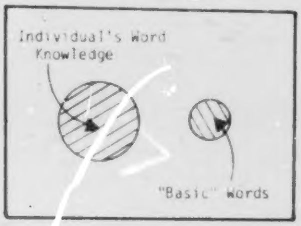
OR


Individual's Word Knowledge
"Basic" Words

If, in actuality, the case is somewhat different, e.g.,

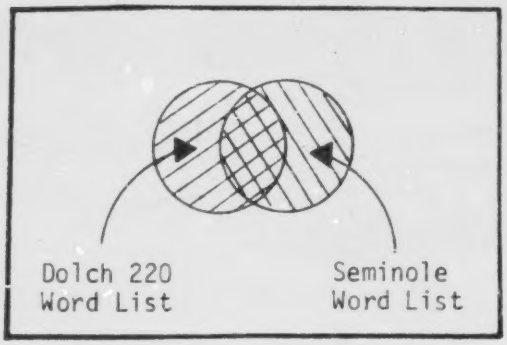

Individual's Word Knowledge
"Basic" Words

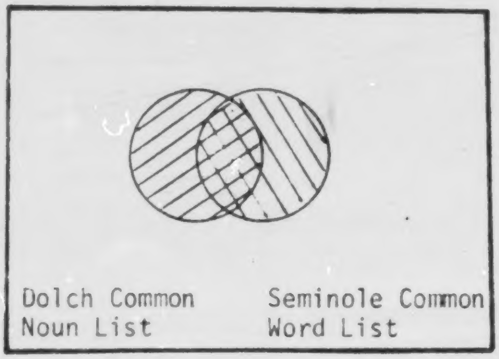
or, even worse


Individual's Word Knowledge
"Basic" Words

the readability formula which utilizes this basic word list will be inaccurate.

Since children's experience bases reflect their different home environments, it is to be expected that experience bases, reading vocabularies, and proclivities to learn particular words would also differ among various ethnic groups. An example of these differences was indicated in a study (Kersey & Fadjo, 1971) of words used in stories by third- and fourth-grade Seminole Indian children. Significant discrepancies were found between the Seminole Word List and the Dolch 220 Word List (which is comprised of service words other than nouns) and the Dolch Common List. The Seminole Word list contained 67.7% of the words on the Dolch 220 Word List plus 149 service words not on the list. The Seminole Word List contained 63.2% of the words on the Dolch Common Noun List plus 189 nouns not on the Dolch List. As represented by Venn diagrams, the findings appear as follows:





As one might expect, some of the nouns from the Dolch Noun List not included in the Seminole Word List are words which fall outside the Seminole cultural pattern (e.g., hill, sheep, snow, and street). A similar study (Berges, 1970) found divergences between words used by migrant children and the Dolch List.

The systematic inaccuracy of "basic word lists" for special groups is extremely important because "basic word lists" are used to assess: (a) language development, (b) reading level of reading test passages, and (c) readability of materials. It is easy to see that tests based on these word lists are likely to underestimate the knowledge of children whose experiences are different from those of the general population. Such "basic word lists" reinforce the tendencies some teachers have to view unfamiliarity with "basic words" as a sign of a "slow learner," a "culturally deprived" child, a "disadvantaged" child, etc. In addition, these word lists often become the basis for readability assessments which, in turn, result in inappropriate sequencing of instructional materials. Because reading is so crucial to evaluation, instruction, and learning, there is a definite need for the development of basic word lists and readability assessments that will be appropriate for specific ethnic groups.

Need for Appropriate Language Instruction

The home is the primary social context of language acquisition. The child first learns to communicate with his family and his style of speech is shaped by these interactions. The child listens to the variety of sounds in his home, draws generalizations from them, and patterns his speech after the variety of language to which he is exposed.

The child begins with very primitive sounds which evolve gradually into the adult pattern of his neighborhood. His two word utterances (sentences) are expanded in length and complexity as his brain matures. He learns to inflect verbs, plurals, and possessives. Little by little, he learns the rules of pronunciation, negation, sentence embedding, and so on. His vocabulary enlarges as he learns new concepts and gains practice in labeling objects. At the time the child is ready for school, his language closely approximates that of an adult in form (structure). The child can utter all of the grammatical constructions of the language. His language is further developed through the continued practice of a variety of forms, and his facility in using them continues to grow.

More than this, the child's command of language continues to be shaped by the demands of his social environment. He acquires social rules which determine the norms for its use. The child develops the ability to process social information, to determine the appropriateness of verbal communication, to use speech to express himself, to label his world, to manipulate others, and to conform to social rules. This sociolinguistic competence, too, grows as the social world of the child expands.

Therefore, when the child enters school, he has mastered most of the linguistic forms and many of the sociolinguistic norms* adhered to in his home and neighborhood. Continued exposure to language events and social contexts consistent with his experience base should result in increased proficiency.

The school environment provides the middle-class child, especially the white middle-class child, with a learning environment which facilitates his language development. The variety of speech expected of him is the same for both school and home. He is already conversant in the school dialect. The authority figure in his classroom is of his social class and he has had ample opportunity to interact with persons of this sort. Though the social context (the school experience) may be new for the middle-class child, there are enough points of similarity to allow a relatively easy transition into this new social context.

On the other hand, children from low-income families enter a decidedly unfamiliar world when they enter school. They have had limited opportunities to interact with middle-class adults. Though they can usually comprehend the speech of the teacher, they are usually not conversant in the middle-class dialect. The children use words, grammatical constructions, and sociolinguistic norms which the teacher views as inappropriate. If they are not already aware of it, they soon learn that their speech is being negatively evaluated.

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*Sociolinguistic norms are those shared values governing the expression of language in specified social contexts. They correspond roughly to the community's notion of "appropriate" speech in particular environments.

Rejection of the child's dialect and attempts to replace it with "standard" English is a high-cost, low-return undertaking. Usually the child has not developed the social competence and, in some instances, the language facility to conform to the norms of the classroom. The teacher's attitude toward the child's language inhibits verbalization and learning in the classroom. The child and the teacher probably develop strategies to minimize their frustrations; the teacher lowers her expectations and the child grows silent.

In such an environment, the child has little opportunity to increase his linguistic competence. Slow acquisition of competence relative to the classroom norms negatively impresses educators as does low performance on other tasks indirectly dependent on linguistic competence. Systematic under-estimation of the child's abilities and lack of awareness of his developed skills and competencies render the teacher ill-equipped to structure learning environments with positive benefits for the child.

Thus, a need clearly exists (a) to alter aspects of the learning environment which adversely affect verbal development of minority-group children, and (b) to plan and implement strategies for further development of students' linguistic competence.

Need for Competent Personnel

A need also exists for competent personnel who possess the capabilities to (a) reinforce effectively the educational assets of specific populations of ethnic minority children, (b) assess accurately the capabilities of the students with whom they work, (c) provide materials and experiences which are appropriate to the culture of the children, and (d) interact with low-income children in a variety of domains and modes. In order to function effectively, schools need trained professional and preprofessional personnel who will be viewed as relevant by the people whom they serve.

Systems presently being used to train preprofessional personnel are viewed as woefully inadequate because they (a) lack a relationship with problems which are salient to the trainee, (b) take far too long to credential the trainee, and (c) expose the trainee to a set of experiences which often teach the trainee to have a low opinion of his people and culture. Therefore, a need exists to build training models which permit preprofessional personnel to (a) acquire competencies which are relevant to the population with which they work, (b) obtain credentials in reasonable amounts of time, and (c) preserve the integrity of their own culture.

In the education of low-income, low-achieving children, parents are a valuable, (and except in rare instances) untapped resource. Until recently, schools had generally not recognized the potential of parents as collaborators with school personnel to further student learning. In the few instances where parents have been included as aides or advisors, they have not been incorporated into the system in a systematic, meaningful way. Parents have knowledge of their children which could and should be exploited in furthering learning opportunities. Effectively trained and wisely positioned, parents could be utilized to foster increased learning opportunities. There is a need, therefore, for an effective means of including parents in the educative process in order to (a) foster greater cooperation between parents and teachers, (b) profit from the knowledge that parents already have about their children, and (c) implement their knowledge in the planning, instruction, and evaluation of educational programs.

Problem Definition

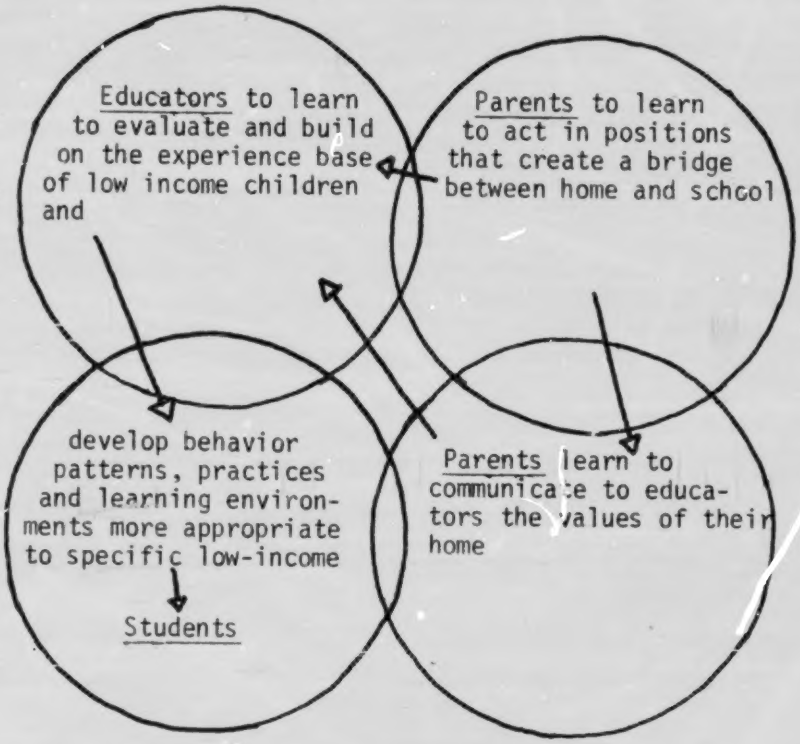
Today, educators who attempt to meet the needs of non-middle-class students must do so without knowledgeable guidance, as there are few sources of information about specific non-middle-class student populations which an educator might use to develop learning activities that build upon the child's existing skills and expectations. Indeed, these needs exist today because (a) the experience bases which low-income children bring to the school environment are typically neither perceived or valued by the child's teacher; (b) middle-class teachers and low-income pupils are usually from divergent ethnic classes and consequently bring divergent knowledge, values, and behavior to the school environment; (c) the middle-class teacher, typically, does not have the experience, tools, or foundations with which to meet the needs of low-income children; (d) the middle-class teacher often imposes behavior which she values on low-income children without concern for resulting cultural conflict; and (e) parents possess valuable knowledge about their children, but this knowledge is not being accessed and used.

In order to meet the needs described in the previous section, program effort will focus on solving the following problems:

1. What devices and procedures can be developed to enable parents to communicate to schools that which is valued in the home environment?
2. What devices and procedures can be developed so that educators can evaluate and build on the experience base of low-income children?
3. What devices and procedures will make it possible to develop teacher behavior patterns, practices, and learning environments more appropriate to specific low-income student populations?
4. What devices and procedures can be developed to position, train, and utilize low-income parents as a bridge between home and school,

and to move parents into meaningful and viable roles within the educational system?

The diagram below shows graphically the relationship of the four problem areas.


Educators to learn to evaluate and build on the experience base of low income children and
Parents to learn to act in positions that create a bridge between home and school
develop behavior patterns, practices and learning environments more appropriate to specific low-income
Students
Parents learn to communicate to educators the values of their home

This program plan proposes to solve these problems by creating and installing a new parental role -- the linkage agent. We perceive the role of linkage agent as primary to creating and improving opportunities for low-income children to learn because it will:

1. Establish the importance of parental roles in educating children;
2. Provide a stable and knowledgeable means of implementing our procedures for identifying, exploring, and understanding the experience base of low-income children; and

3. Serve as a basis for re-establishing a condition of mutual trust between the schools and homes of low-income children.

The creation and effective use of parental linkage agents will require careful planning and articulation with the various stakeholders in the educational community. However, it is through the creation of this role that we envision acquiring information about the experience bases of low-income children and thereby improving educational opportunities for specific populations of low-income children. Program work will focus on the following low-income populations: urban Blacks, rural Navajos, orban Oriental-Americans, and urban Latinos.

It is envisioned that this work will have national implications for the education of these populations. Program work will have a far-reaching impact on teacher education, curriculum development, and educational planning, development, management, and evaluation. Because of the heavy national investment in compensatory education, we anticipate continued efforts by interventionists to pursue compensatory strategies. However, as the results of our efforts become known, we anticipate affecting an increasing proportion of the population which is presently exposed to interventionist strategies.

Program Strategy

The program for Renewing Home-School Linkage has adopted a mixed strategy which consists of three different approaches. While the three approaches are not markedly different from those used in any development and research effort, the emphasis given to each may vary, simply because of the lack of relevant and demonstrably valid information available for planning and directing the activities of this program. The need to reduce the growing alienation and isolation between the schools and homes of low-income children is pressing. The present knowledge base is inadequate for developing immediate solutions; yet immediate solutions must be sought. Additionally, the pressure of time and the lack of funds require that the three approaches be pursued in parallel, rather than sequentially as might be more desirable.

The three strategies or approaches which will be followed are:

1. Information Collection and Organization,
2. Problem Clarification and Delineation,
3. Product Development

Information Collection and Organization

In collecting and organizing information, program staff will follow accepted procedures of conducting literature reviews and analyses. Additionally, however, attention will be given to searching for less conventional, yet equally valid, sources of information that will provide perceptions of problems and possible solutions from the point of view of the low-income community residents. Emphasis will be placed on obtaining information from parents through a number of different techniques. Program staff will also concentrate on developing procedures for eliciting this information from parents in a relatively systematic manner.

Of greater importance than the sources of information, however, is the fact that the collection and organization of this information will be carried out in a way to insure that commonly accepted ways of thinking about educational problems do not force conventional conclusions that may not be warranted. In other words, it is important that the available information be analyzed from the point of view of its implications for parental and home involvement in schools--which may be a different perspective from that of the people carrying out the collection and organization.

A number of small-scale studies will be conducted as appropriate. Such studies might be conducted for either or both of two reasons: first, lack of time and funds; and second, to identify crucial variables for further consideration.

Lack of time and funds precludes the conduct of larger-scale systematic research that ideally ought to be used as the basis for development work. Much development work in any program must be based on expert judgment based on less than desirable amounts of research-based data. However, the thrust of this program is so different that frequently there is virtually no information base for expert judgment or decision-making. Thus, at least a minimum amount of high priority information must be generated quickly to test at a gross level hypotheses underlying development-related decisions. Small-scale studies will permit the program to generate quickly at a relatively low cost some of the crucial information which is needed.

The second purpose for the conduct of small-scale research studies will be to identify crucial variables that should be studies, controlled, or randomized in further work. Again, these studies will be necessary because of the lack of valid information relevant to development work on home-school linkage. In this second instance, studies will be directed to decision-making and to maximizing the usefulness of the information obtained from further studies. It should be noted that considerable attention will be given to reports from or interviews with individual subjects in order to insure that the staff's understanding of the information is in fact the interpretation that the subject wished to convey.

As necessary, large-scale research studies, or studies directed to evaluation of processes and products will be conducted. These studies will be different in purpose from those conducted as part of the development strategy below; their focus will be on collection of evaluation information and on contributing to the knowledge base for the program.

Problem Clarification and Delineation

The program effort is directed to the solution of problems that have been defined explicitly, but at a general level. As work progresses, these problems will have to be revised and delineated into various numbers of problem areas. It will be essential that, as work progresses, the general problems be delineated or translated into problems that actually exist in a community.

The strategy here will be to place primary emphasis on identifying and establishing formal or informal relationships with members of these communities who can join in cooperative efforts with the staff. Community members will both transmit community-based information, and work with the staff in organizing and analyzing information so that underlying problems can be stated explicitly.

Products-Development Strategy

The research and development strategy adopted by the Far West Laboratory will be applied throughout this program to assure the ultimate release of only those products which meet the claims which are made for them. The steps in this strategy are listed in Figure 1.

Four major decision points are included in the strategy. The first important decision will be made at Step 2 when the outline of the proposed product or training procedure is reviewed and accepted as meriting preliminary development. The primary criteria applied at this step will be the extent to which the product relies on previous research, as compared with the intuitions of the development staff, and the extent to which the concepts or skills included in the product can be defined.

At the end of the preliminary field test (Step 7) a second important decision will be made. Based upon the reactions of the subjects and the behavioral changes they make, a judgment will be made regarding the relevance of the product. If the response is positive, the product will then move to further revision in preparation for a main field test. Since the bulk of the data will be obtained during the main field test, the completion of this test (Step 15) will serve as a third critical decision point. If the product fails to perform adequately, it will either be dropped or undergo revision and be recycled through the main field test stage.

The final decision to release the product will be made at the end of the operational field test (Step 20) before work begins on the final revisions. The main purpose of the operational test will be to determine whether the product can be used effectively when Laboratory personnel are not available to monitor it.

Within this program, these four decision-points will serve as developmental milestones. All skill training and concept-development materials will go through the entire research and development sequence and will be subjected to these decisions. Products which involve the use of already tested materials

Figure 1

THE STEPS IN THE RESEARCH AND DEVELOPMENT STRATEGY

A. Develop preliminary outline of product

1. Review literature.
2. Prepare outline of product including statement of specific objectives or behavioral changes to be achieved and a plan of activities to be carried out.

B. Develop preliminary form of product

3. Prepare scripts for audio or visual materials to be included.
4. Record, edit, dub audio or visual materials.
5. Prepare written materials including evaluation and feedback forms.

C. Conduct preliminary field test

6. Conduct preliminary test in 1 to 3 sites, using 4 to 12 subjects.
7. Evaluate results of field test.

D. Produce main product revision

8. Revise audio or visual materials.
9. Record, edit, dub revised audio or visual materials.
10. Revise written materials.
11. Prepare after-training follow-up materials if to be included in product.

E. Conduct main field test

12. Conduct field test using sample of 30-75 subjects.
13. Collect pre-training and post-training records of subjects' performance.
14. Collect delayed post-training data if to be obtained.
15. Evaluate main field test results to determine if product meets the specific behavioral criteria established.

F. Produce operational product revision

16. Revise materials for operational test.
17. Prepare complete implementation package including all materials needed to use the product without help from Laboratory personnel.

G. Conduct operational field test

18. Train operational test coordinators, if necessary.
19. Conduct operational test.
20. Evaluate operational field test results.

H. Produce final product revisions

21. Make final revisions in the product.

I. Prepare final report

22. Prepare and distribute research report giving results of all field testing.

J. Dissemination and implementation

23. Distribute product for general use.
24. Implement product in schools, universities, colleges.

will permit us to eliminate one or more of the milestones and the accompanying developmental steps. For example, an application of a module may move directly from a preliminary to an operational test if the effectiveness of the component competency units have already been established during the developmental testing. Whenever there is a question regarding the need for further testing of a product, the entire R & D strategy will be employed.

To summarize, the third strategy which will influence the work of this entire program is the research and development strategy adopted by the Far West Laboratory. This strategy leads to the development and release of products and procedures with data to prove effectiveness within a reasonable time frame.

Establishing Program Priorities

A number of decision points exist in this plan which are dependent upon the outcomes of prior tasks. However, in instances in which those decisions relate to the ordering of priorities, they will be made according to the following criteria:

1. The highest order of priority will be activities chosen from among those alternatives which will result most quickly in the reduction of home-school dissimilarity.
2. The next highest order or priority will be activities chosen from among those alternatives which will result in input which will be needed to reduce home-school dissimilarity.
3. The next order of priority will be chosen from among those activities which will result in the development of processes for assessing information about the knowledge bases of the populations at issue.
4. Given restricted funds, we will reduce the number of populations with which we will work according to that population's unique profile in

the following matrix:

		Age*	Geographic Location	Ethnicity	
△ HIGHEST PRIORITY △	1	0 - 2	Bay Area	Urban Blacks	▽ LOWEST PRIORITY ▽
	2	3	Northern California	Rural Chicano	
	3	4 - 5	California	Urban Chinese	
	4	6	California, Nevada, Utah	Rural Navajo	
	5	7	The Northwest	Urban Latinoes	
	6	8	The North and Mid-West	Rural Whites	
	7	9	The Nation	Urban Japenese	

*IN YEARS

The above matrix will be used to guide us as we order our priorities. It provides for a number of degrees of freedom in making priority decisions, because of the nature of the work that we propose. For example, in some instances age is defined by the component designs. Again, the need to acquire information about replicability may require working in a lower priority geographic area. The benefits of such a decision, of course, will have to be weighed against costs. Furthermore, the ethnic populations upon which we will focus will be a function of funds. The reader will notice that while seven populations appear in column three, work is only planned for the first five populations. In the event that funds become available to focus on the sixth and seventh populations, the plan will be extended.

It is intended that manageable tasks such as those proposed for the first fiscal year and milestones such as those proposed for the first two-year period, will be selected in accordance with the total plan and conducted in a manner that will lead to the greatest payoff.

The Inclusion of Parents

The need to spend the educational dollar wisely is becoming increasingly crucial as taxpayers and their elected and appointed officials look more closely at the cost-effectiveness of education. Educators must use resources more effectively and efficiently in order to develop more cost-effective educational processes.

One of the resources for the educator--the parents of the children whom the school would educate--is also one of the most ignored resources. Parent-child interactions within the family provide the parent with a plethora of knowledge about his children, which could be valuable to educators who recognize the importance of building on the child's strength and previous experience. Thus, the overwhelming consideration of program staff in pursuing and implementing these three strategies will be the inclusion of parents at all levels of decision-making.

The Role of Parents in Education

In the past, and increasingly more typical since the 1960's, low-income parents have played various roles in schooling institutions. This condition has ceom about for a variety of reasons, e.g., survival of some educational programs, the need for additional free and inexpensive resources, the proposition that child performance should be improved through parent education programs, the desire on the part of the school to get information to parents, and the need to demonstrate to funding sources, prior to funding, that parents have been consulted. In some cases, these activities have resulted in low-income parents becoming better informed. Home visits, parent/teacher meetings and PTA meetings have been useful in this respect. In other cases, parents have become more aware of what is happening in their children's classrooms as a result of parent workshops and observations. In still other cases, low-income parents have gained low-entry level employment in the schools as paid and volunteer health, lunchroom, field trip and classroom aides. In a few instances, low-income parents have been involved in advising and recommending through such vehicles as parent advisory committees and councils. And, in rare instances, low-income parents have participated in decision-making about program, policy, personnel, and budget matters by means of community and educational boards and councils.

Generally, these activities have not served the purpose of effectively moving low-income parents into meaningful and viable roles. This, in our judgment, has been true for the following reasons:

1. The flow of information has been one way--from the school to the parent.
2. There has been a lack of clarity with respect to defining such terms as parent involvement, parent participation, community control, and community-shared power.
3. There has been a lack of clarity in the definition of the community.
4. There has been a lack of respect on the part of some school personnel for the legitimacy of parental opinions.
5. Parental programs have usually been funded by "outside" agencies for relatively short periods of time.
6. Parental roles have not been "installed" or embedded in the fabric of the school.

7. Program assumptions have often ignored the previous experience and learning of the parents.
8. Typically, parents have been frozen out of real decision-making roles and have been used in ways which give support to previous power balances.
9. Program staff, professional and non-professional, are trained to identify with the interests of the institution rather than those of the parents.
10. Guidelines for parent involvement are written in vague language with no mechanism for enforcement.
11. Funds which are allocated for parent involvement indicate its low priority status.
12. The design and implementation of programs to involve parents has been controlled by professionals whose interests and respect are not typically directed toward low-income peoples.

Evidence of Efficacy of Parental Inclusion

Yet, educational innovators and opinion leaders regard the involvement of parents in the work of the school, in varying degrees and ways, to be an educationally justifiable practice.

Tony Ward, former Director of the East Harlem (NYC) Block School, for example, writes:

> We cannot improve the quality of education in poor communities by improving our technique, however valuable one or another new method may seem in a particular situation. Instead, we must change the fundamental relationship between the school and the community, to assure that the school by its very structure builds in the children positive attitudes towards themselves and their school, and to assure that the school respects and utilizes to the masimum the culture of the children and their community.

Don Bushell, Jr., at the University of Kansas writes:

> The education of every child is, at the very least, a cooperative venture between parents and teachers....Parents have always had more potential reinforcers at their disposal than the finest teacher, and their contacts with their children occur in a wider range of circumstances than is possible in the teacher-child relationship.

Other such approaches to educating young children also recognize the parents. Some of these follow:*

The Tucson Early Education Approach

> At the present time, the Tucson Early Education model does not specify a specific program for...parent involvement. It has become evident, however, that (a) clearly defined model...is needed. (A) model for the parent involvement component (is) now being developed to provide an organization of activities and services which is consistent with the theoretical framework providing the rationale for this program.

Behavior Analysis Approach

- ·Parents learn the technical skills of behavior analysis.
- ·Tutoring experience makes parents instructional partners in the classroom.
- ·Parent contribution is recognized with appropriate salary.
- ·Technical skill in the classroom is seen as the foundation for community support of the educational process.

The Autotelic-Discovery Approach

> A well designed program, however, can improve the quality of parent-child interaction by helping parents overcome their own limitations due to low educational achievement. The program can show parents how to help their own child develop a positive self-concept and intellectual ability. A good program can also reduce the feeling of alienation and powerlessness by demonstrating to parents that in at least one area of concern--the education of their children--what they say and do can make a difference. Following this line reasoning, the parent involvement program should have the following objectives: (1) Improve the quality of

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*Each of these are Follow Through models. For more information, contact: Follow Through
400 Maryland Ave., S.W.
Washington, D.C.

exchange between parents and their children, and (2) decrease the parents' feeling of alienation and powerlessness.

The Florida Parent Education Approach

The program emphasis is on (1) the development of non-professionals as parent educators, and as effective participants in the classroom teaching procedures and instructional tasks which can be carried from the school into the home to establish a more effective home learning environment.

The Systematic Use of Behavioral Principles

A parent program will focus on training parents in the skills of a good teacher. The mother will learn how to induce desirable behavior and how to teach the skills that are being taught to the children in the classroom.

The DARCEE Approach to Follow Through

We have found that the mothers must be able to perform certain basic skills in teaching their children before they can progress to more complex ones...Group meetings of mothers are the integral part of the third phase of the plan of training. The meetings increase the opportunities of socialization of the mothers.

Virginia Union University Follow Through Model

Virginia Union University believes that systematic instruction with parents can result in effective changes in pupil achievement and parents' understanding and skill in teaching their children. We believe that parents can be educated to be effective teachers of their children. Educating parents in how they can help their children get maximum benefits from school instruction will be one way of extending school learning experiences to the home. Parents will be trained to teach their children certain skills, to use certain materials such as games and puzzles, to read stories to the children, and to select books, magazines, etc., that will contribute to the establishment of a home atmosphere which supports learning.

A Pupil-Parent-Teacher Follow Through Model
South Central Region Educational Laboratory

The ultimate goal of parent programming is to assist low-income adults to function more adequately on behalf of their children's education. In addition to providing basic knowledge about how children grow and learn, parents frequently experience a parallel curriculum as a means of discovering how they may teach their children at home using materials which reinforce classroom learning.

Cost Effectiveness of Parental Inclusion

We view parental inclusion to be cost-effective because it will result in an end-state in which:

1. Schools will have the capability to educate low-income children effectively and efficiently at a lower cost by reducing the need for remedial curricula, materials, and personnel.
2. It will be both feasible and possible to use valuable resources (parents) productively and with purpose.
3. It will be possible for school systems to reduce the cost of "special" educational programs during the adolescent years.
4. It will be possible to increase cooperation between the school and home on important educational matters, thus reducing valuable administrative time which is presently being used to "put out fires" and placate low-income parents and groups.
5. It will reduce the costs resulting from drop-outs and the under-educated which society must pay during that portion of the low-income child's life subsequent to his years in school.

Additionally, this strategy will yield, at least, the following by-products:

1. Human resources will be developed, and thereby raise the level of education among low-income peoples.
2. A sense of self-renewal within the school and the home will be developed.

Program Organization

Program efforts will be organized into five components which will focus on inclusion of parents, gaining information about the experience base of low-income children, and developing necessary teacher training materials, as well as program planning and application. The components are:

1. Parental-Inclusion Component
2. Home-School Similarity Component
3. Teacher Training Component
4. Program Planning and Direction Component
5. Application and Utilization Component

The Parental-Inclusion Component

During the last decade, parental roles in educational decision-making have been introduced; however, these roles have not been adequately defined or systematically explored. Lack of agreement about their purposes has frequently resulted in mistrust, unproductive use of human resources, and severe loss of faith in school institutions. As we have already indicated, we believe that educational opportunities can be improved by renewing the links between the homes and schools of low-income children. The inclusion of parents in roles which are carefully planned and designed, and properly understood and introduced will be the means used to achieve program goals.

A number of kinds of knowledge will be required in order to create and install this new role--which we will call a "linkage agent"--in school systems in an effective way. For example, educational planners must know how the various stakeholders* in the educational community perceive parents. Planners must also know how the linkage roles which parents are presently filling (or not filling) are viewed by these stakeholders. Furthermore, educational planners need the information to predict with some degree of accuracy the reaction that various stakeholders will manifest when and where this new role is introduced.

Obviously, the linkage agent must be trained. However, training must take place under circumstances in which learning can take place and in which the prospective linkage agent has the opportunity to provide other stakeholders in the educational community with knowledge, insight, and visible services. Parents serving as linkage agents will be able to make unique contributions to improving educational opportunities for their children.

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*The term stakeholders is used here to refer to parents, students, teachers, building administrators, comprehensive services personnel such as nurses and social workers, supervisor personnel such as the coordinator of in-service training for a district, and where applicable, assistant and associate superintendent of school.

Program work will be divided into three major areas of activity:

1. Planned Change will focus on creating and installing the role of linkage agents in school systems;
2. Alternative Routes to Credentialing will develop a model preprofessional training program or system of alternative routes to credentialing; and
3. The Cultural Appropriateness Symposium (CULAS) will be used to utilize the special knowledge low-income parents have about their children.

The objectives and phases of these three activity areas within the component will be discussed below.

Planned Change

The objectives of work in this area are to (a) develop and utilize processes to determine how various stakeholders in school districts view parents as linkage agents; and (b) develop methods for predicting ways in which parents can be installed in schools as linkage agents in a planned way and with a minimum of conflict.

Work will be undertaken in the following sequence:*

Phase I:	Domain Definition
Phase II:	Roles by Activities
Phase III:	Judged Similarity of Roles
Phase IV:	Preferences for Roles and for Activities
Phase V:	Development of Specifications
Phase VI:	Implementation and Evaluation of Specifications
Phase VII:	Conduct Utilization and Dissemination Study.

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*Detailed planning at the task level has been accomplished in each phase of all five components of the program. The task descriptions for all phases of Planned Change are included in Appendix C as an example of the level of detail program planning. The remaining task descriptions are available within the program; however, they are not included in this document due to their excessive length.

Phase I: Domain Definition. This phase is based on the assumption that various stakeholders hold different views of parental roles. Undoubtedly, there are numerous roles that various parents believe they should and should not play in the education of their children as well as numerous roles that other stakeholders feel that parents should and should not play. Therefore, it is necessary to elicit the views of the various stakeholders toward the role of parent as linkage agent. The purpose of Phase I is to elicit a broad range of role descriptions and information which could be considered as possible characteristics or features in the realm (domain) of the role of parent linkage agent.

Samples will be made of parents (stratified by income), students (stratified by grade), teachers, building administrators, comprehensive services personnel, and assistant and associate superintendents. Rotation discussions (developed as part of CULAS) will be held with a sample of five representatives of each stakeholder group and videotaped. An interview schedule will be developed to elicit descriptions of existing parental roles and it will be administered to the remaining 10 people in each sample. Discussions and interviews will be used together to elicit the widest possible range of descriptions of parent roles. The data will be analyzed to provide a general overview of community perceptions and the descriptions will be used in the next phase of work.

Phase II: Roles by Activities Matrix. Some descriptions of parental roles will be seen as appropriate for certain educational activities while other descriptions of roles will be seen as appropriate for other educational activities. The purpose of work in this phase is to gather information about which types or categories of parental roles "go with" which types or categories of educational activities. Parental roles and educational activities must be matched in order to adjust for the different perceptions of the various stakeholders and to insure that the selection of roles is not too restricted for (or irrelevant to) the educational activities.

Descriptions of parental roles and educational activities will be selected from responses elicited in Phase I and organized into a matrix in which the role descriptions and activities will form the rows and columns. The matrix will be administered to the sample described in Phase I as part of an interview. This Matrix Interview Technique (described in detail in Johnson & Harding, FWLERD, 1971) is a means of collecting a large amount of data in a relatively fast and inoffensive manner.

The resulting data will be compiled and analyzed for the purpose of: (a) summarizing the data for each subgroup in the sample, (b) determining which roles are most often associated with appropriate for each objective and which objectives are most often associated with (appropriate for) each role, (c) determining which roles are perceived to be similar and which activities are percieved to be similar, (d) comparing the responses of each subgroup by means of intercorrelations, and (e) graphically displaying the perceived relationships among roles and activities by means of multi-dimensional scaling procedures.

Phase III: Judged Similarity of Roles. Work in this phase is undertaken primarily to validate the information gained in the previous phase. The judged-similarity technique is based on comparing the similarity of pairs of role descriptions rather than matching the descriptions with educational activities. The technique provides an independent check on the matrix procedure and a separate set of data for later use in developing specifications for the linkage-agent role.

The pairs of role descriptions will be administered by means of an interview to the sample described in Phase I. The resulting analysis will list the verbatims and graphically display them by means of multi-dimensional scaling procedures.

Phase IV: Preference for Roles and for Activities. The purpose of work in this phase is to determine which role descriptions and activities appeal and do not appeal to various stakeholder groups. The role descriptions and activities will be selected on the basis of results in Phase II and III and administered by means of an interview to an expanded sample (N=50, instead of 15) of each stakeholder group. Each individual will be asked to rank the role descriptions and activities from those he prefers most to those he prefers least.

The analysis of role description rankings will focus on determining sets of role descriptions with similar preference patterns, preference patterns for each stakeholder group, and preference for roles which are salient in the schools with which groups of stakeholders are connected. The analysis of activities will follow a similar pattern. Finally, the data will be combined in order to obtain multi-dimensional scaling for individuals according to preference correlations.

Phase V: Development of Specifications. Work in this phase will emphasize developing and testing specifications for parental roles. Once attractive role descriptions appropriate for selected educational activities have been obtained, the staff will develop actual prototypes of roles based on these activities. The prototypes may include films, photographs, drawings and/or verbal descriptions which represent various educators' ideas of what each parental role would consist, its type of teacher-pupil interaction, and its type of parent-teacher interaction.

These prototypes would then be tested with a sample population drawn from that of the previous phase. Thirty individuals would be selected who showed a high degree of preference for each of a number of parental roles. The respondents would then be asked to match the prototype materials with the role descriptions in order to determine the validity and suitability of the prototypes. The data will be analyzed in terms of determining the best match between parental role descriptions and stimulus prototype materials. On the basis of the data from Phases II through V, a preliminary set of specifications will be developed.

Phase VI: Implementation and Evaluation of Specifications. In order to evaluate the suitability of the preliminary specifications, parental roles based on these specifications will be implemented in a number of different sites. The sites will be selected during Phase II of Alternative Routes to Credentialing (discussed on pages 50 and 51 of this document); they may be school districts or they may include other federally or state-funded agencies. All sites will have made a commitment to initial participation in the program and all sites will have identified parents who wish to participate in the role of linkage agents.

An attempt will be made to implement as many of the specifications as possible in a variety of sites and to evaluate their effectiveness in terms of (a) the reactions of various stakeholders, and (b) the capabilities of parents (after training) to fill the specified roles.

Parental activities will be carefully monitored. Data will be collected for a group of 30 stakeholders in each agency comparing predicted and observed reactions and matching perceptions of actual roles to the role descriptions. The resulting data will be analyzed to determine the effectiveness of the specifications and roles, and the nature of any changes which may have occurred in the agencies as a result of the installation of parents as linkage agents. If necessary, work will be recycled through Phases V and VI until appropriate specifications and roles have been described. Program work will then focus on refining the specifications for installation in a variety of settings and on further testing and modification of the new linkage-agent role.

Phase VII: Dissemination and Utilization Study. Work in this phase will be undertaken as part of the effort within the Application and Utilization Component described on pages 100 through 105 of this plan .

Alternative Routes to Credentialing

The objectives of work in this area are to (a) develop a "mix" of educational institutions and agencies (i.e., state departments of education, colleges, universities, etc.) through which preprofessionals may be credentialed; (b) conceptualize, describe, and design model programs which facilitate maximum involvement of the learner in the design of the educational program; (c) implement, monitor, evaluate, and install the system; and (d) define sets of competencies which various categories of preprofessionals must have in order to be effective linkage agents.

Work will be undertaken in a sequence of eight phases:

Phase I: Identify Colleges, Universities and Other Agencies That Will Participate and Work Out Cooperative Arrangements with them

Phase II: Locate Development Sites and Identify Parents Who Will Participate in the Program

Phase III: Hold Initial Course of Studies in Which the Participants Write a Proposal for a Proposed Course of Studies Which Leads to a Specified Degree

Phase IV: Negotiate Proposal and Cost

Phase V: Develop Training Modules I, II, and III

Phase VI: Implement the Training Program

Phase VII: Develop Training Modules IV Through XXIV

Phase VIII: Conduct Utilization and Dissemination Study

Phase I: Identify Educational Institutions and Agencies That Will Participate and Work Out Cooperative Arrangements. Many colleges and universities throughout the country are taking a new look at their teacher training programs. Some institutions have reformed old programs and others have adopted totally new programs. Our goal during this phase will be to identify those institutions throughout the country that would be interested in participating in a new program to credential preprofessionals or to develop alternative methods of credentialing school personnel.

We have already experienced some success in this regard as a result of tentative inquiries. The University of Albuquerque, for example, has assured us that they would be pleased to offer the initial course (Phase VIII) and Laverne College (Laverne, California) has agreed to offer a total (junior and senior year) degree program which meets the specifications we have outlined (letters of interest are included in Appendix D). Additionally, other institutions (for example, Sacramento State College) appear to be interested. Thus, there is reasonable evidence and support for the assumption that targeted institutions can be identified which are interested in the work of this component.

We wish to point out that while we do not propose to form consortia, representatives of participating institutions will be brought together periodically for the purpose of articulation, input, and evaluation. We believe that this arrangement will support diversity and expose the participants to competing points of view. It is anticipated that there will be as many routes to credentialing as there will be participating institutions.

An optimum mix of cooperating institutions will require:

1. One or more agencies with sensitivity to the problem, and competence in planning, designing, and installing innovative programs.
2. One or more junior colleges with both the flexibility and commitment to alternatives in higher education.
3. One or more colleges willing to accept A.A. degree level students who are graduates of a junior college and who will participate in alternative programs which lead to a B.A. degree.
4. Two or more funded agency programs or projects which have the purpose of raising the level of education of low-income peoples and

are willing to provide support for a number of low-income students.

5. Several school systems or other agencies which are willing and able to create pilot and experimental positions for probationary and/or permanent personnel.
6. Representatives from local, state, regional, and national agencies.

In order to identify agencies interested in participating in such a program, a one-page information sheet will be prepared and mailed to 2000 educational agencies. A follow-up brochure will be prepared and mailed to responding institutions. Four regional meetings of interested institutions will be held in which program objectives will be described and questions will be answered. Tentative commitments will be sought to prepare a proposal for a degree program. As commitments are formalized, a letter of understanding will be mailed along with the names of each participating institution, and the brochure will be updated.

Phase II: Locate Development Sites and Identify Parents Who Will Participate. Throughout the country a number of federally and state-funded agencies are experiencing major difficulty in involving parents in the work of the program, and in providing requisite training for participating parents. This problem demands a solution because of the increasing demand for competent preprofessionals in the field of education and in the fields of health, nutrition, the social services, etc. The parent training program needs to be relevant to the people being served and the jobs to be filled, and the training must be conceptualized as a continuous process.

Accordingly, in seeking development sites, we will show interest in situations in which (a) our basic philsophy is accepted, (b) there is a genuine long-term commitment insofar as possible to develop a viable training program, (c) a relationship already exists with the public schools (in instances where the site at issue is not a public school), and (d) the public school and the agency are prepared to participate in the program, at least on a pilot basis.

Funded programs both within and outside of schools in the Bay Area will be contacted by mail. An updated brochure developed in Phase I will be sent to respondents indicating interest in the program. A conference will be held similar to the regional meetings in Phase I, in which questions will be answered, objectives will be described, and commitments will be sought. Each participating agency must have a parent as a participant in the conference.

Phase III: Hold Series of Seminars to Generate Proposed Course of Studies. At this point, it is crucial to meet parents' needs for information and for a set of requisite skills. Thus, we are proposing that participating institutions offer an initial course titled "Alternatives in Education" for the purpose of developing a course of studies for the preprofessional training program.

Prior to initiation of the course, it will be necessary to select faculty members, and to identify the requirements of the state, local cooperating agencies, and the local community which pertain to parental roles in education. It will also be essentail to establish appropriate support mechanisms such as competent and sensitive staff, convenient sites, manageable training materials, and job or internship placement. Participation in the seminars should provide parents with (a) an awareness of the job to be done, (b) a legitimate and appropriate course of study, and (c) specific skills in educational planning..

The course will consist of a series of seminars in which parents will translate the requirements of a preliminary proposal (prepared by program staff) into relevant competencies. The seminar participants will define and describe the entire course of studies for the preprofessional training program in terms of a proposal to the educational institution. The proposal will include:

1. Rationale
2. Statement of the problem
3. Definition of the audience
4. Definition of the proposed degree program
5. Need for the proposed degree program
6. Admission requirements
7. Competencies which graduates of this course of study will be expected to manifest
8. Work/study, inservice and/or internship provisions
9. Course of studies including general, intermediate, professional, elective and "contract" provisions
10. Proposed course requirements
11. Resources available
12. Articulation with other existing local programs.

The proposal will be revised as necessary until it (a) satisfies the requirements of the state, the agencies, and the community; and (b) meets the needs of the parents.

Phase IV: Negotiate Proposal and Cost. When the proposal has been approved by the seminar participants, it will be mailed to colleges and universities that have committed themselves to participating in the training program. It is anticipated that there will be a wide range of reactions to the proposal and so the mailing will be followed by telephone interviews. When interest is shown by an institution, meetings will be established for the purpose of discussing the proposal and negotiating both the proposal and costs. An attempt will be made to select institutions which can offer courses which most closely fit the specifications of the proposal, and which appear to be most cost-effective.

Phase V: Develop Training Modules I, II, and III. Because the elected college or university may use semester, quarter, or tri-semester systems, we will need to develop flexible training modules. Each module will be equivalent to one college course; i.e., if Social Psychology I is a 3-credit course, our Social Psychology modules will also be worth three credits at the elected institution. In this instance, we would develop three competency units (each worth one college credit) according to the following format:

Module I:

- A. General Description of Module
    - 1. List of competency units
    - 2. Definition of delimitations of competency units.
- B. Competency Unit 1
    - 1. Description of competency unit
        - a. Unit objective
        - b. Procedures
        - c. Tasks
        - d. Estimated student study time
        - e. Physical facilities
        - f. Equipment to be used
    - 2. Instruction
        - a. Alternative of instruction modes
        - b. Instructional materials
        - c. Bibliography
    - 3. Feedback
        - a. Criteria for evaluation
        - b. Practice conditions
        - c. Self-evaluation
        - d. Peer evaluation
        - e. Supervisoral evaluation
    - 4. Evaluation
        - a. Conditions for demonstrating success
        - b. Sponsoring institutions evaluation
- C. Competency Unit 2
- D. Competency Unit 3

A systems analysis approach will be used to develop the modules, involving a delimitation of the area, definition of requirements and constraints formulated of specifications and the planning and design of alternative training approaches. The prototype form of the module will be evaluated on the basis of performance criteria and revised as necessary. Three modules will be developed initailly and used to implement the training program in Phase VI.

Phase VI: Implement the Training Program. During this phase, program staff will make judgments about the suitability and appropriateness of the training modules and assess growth on the part of the participants. The activities of the participants will be closely monitored to determine that parents are not "waylaid" and used for purposes other than those agreed upon in the letter of understanding between the school districts (agencies) and the Far West Laboratory. After completing each competency unit, each participant will be evaluated on the basis of performance criteria. As evaluation data are analyzed and interpreted, the interpretations will be discussed with the participants in an effort to validate their accuracy and relevancy.

Phase VII: Develop Training Modules IV Through XXIV. The remaining modules will be developed in a manner similar to that used for Modules I through III, if the early modules prove to be effective training devices. Any changes or revisions which are indicated by the operational test in Phase VI will be made as necessary.

Phase VIII: Conduct Utilization and Dissemination Study. The objectives of this phase and the steps necessary to achieve these objectives are discussed on pages 100 through 105 of this plan.

Relationships to other Laboratory programs. Program work in this area will be able to profit directly from the experience and expertise of other Laboratory programs; namely the Instructional and Training Systems Programs, and the Bay Area Teacher Training Complex. The Instructional and Training Systems Program is developing instructional training systems for staff development in (a) federal, regional, state, and intermediate educational agencies (b) D&R programs, and (c) linkage and dissemination efforts. A consortium of educational institutions in the Bay Area has been formed; participating institutions offer the courses as part of programs which lead to junior college, university, and graduate-level degrees. The Bay Area Teacher Training Complex (Teacher Education Division) has been formed by a number of educational institutions, including school districts and teacher training institutions, for the purpose of developing comprehensive programs which will include a wide range of teaching skills.

Cultural Appropriateness Symposium

The objectives of work in this third area are to (a) develop and utilize procedures for parental evaluation of the appropriateness of educational products for children of diverse cultural heritages; and (b) develop specifications for educational products that meet the desires of various populations in the learning community and that bring about parent involvement in their evaluation.

The Cultural Appropriateness Symposium (CULAS) is a procedure for evaluating the appropriateness of educational products for children of diverse cultural backgrounds. This procedure would appear to be equally useful as: (a) a selection process for communities desiring educational material appropriate to unique populations within ethnic groups; (b) a means of facilitating decision-making by parents about the education of children; and (c) a process for identifying and defining salient components of experience bases of specific populations of low-income children.

Work will be undertaken in the following sequence:

Phase I:	Determine Parent-Generated Criteria
Phase II:	Conduct the Pilot Cultural Appropriateness Symposium
Phase III:	Analyze Data and Report.

Phase I: Determine Parent-Generated Criteria. "Rap sessions" will be held in which the parents discuss their children and their children's needs in relation to school. The parents will then be exposed to educational products, including the producer's objectives for the product and instructions for its use. A group discussion will focus on questions such as "Do you want your children to learn the skill this product was designed to teach?" In order to elicit the parents' criteria for evaluating educational materials the session will be videotaped so that the parents' actual phrasings can be used. The videotapes will be analyzed by Multi-Ethnic Education staff and criteria will be stored on color-coded cards--one color for each class (films, books, etc.) of products. This process will be continued until similar sessions fail to elicit new criteria. The videotapes will then be stored for later use in Phase II.

It is possible that the parents will generate a set of criteria that are not applicable to many educational products; this does not mean that their criteria are irrelevant to the parents' perceptions of their children's needs.

At this point, the criteria will be typed on cards and disseminated along with instructions and demographic questions to a sample of 60 parents from each of the four major ethnic groups and white parents. The criteria will be administered by parents who have attended sessions on parent education at Far West Laboratory. When the parent has read and evaluated all the criteria, and added any criteria he feels have been omitted, he will separate the deck of cards into three piles: (a) those items he wants his children to learn, (b) those he doesn't care if his children learn, and (c) those he doesn't want his children to learn. Then within each pile, the parent will rank order the cards from those he would most like his children to learn down to those he would least like his children to learn.

The card piles and rankings will be analyzed to determine the top and bottom 10 criteria in each of the three piles for each distinct population. These criteria will form the final Criteria List which will be used in evaluating educational products at the pilot symposium.

Phase II: Conduct the Pilot Cultural Appropriateness Symposium. The objectives of this phase are to give parents the opportunity to think about and discuss educational products in terms of criteria and to evaluate a large number of educational products. In order to maximize the effectiveness of the Symposium, parents will first be involved in discussions about (a) parents' role in the education of their children, and (b) the role traditionally assigned to parents in relation to the role they in fact have the capabilities to fill.

A number of symposia will be held and each symposium will involve 20 parents from the same ethnic group. After a series of rotating orientation discussions, parents will review a large number of educational products which have been assembled by the Multi-Ethnic Education staff, and discuss their objectives and possible outcomes. Then a discussion will be held on evaluating educational products for their cultural appropriateness and the method of deriving criteria for this evaluation.* Parents will perform four evaluative tasks:

1. Yes-No Questions. Each product is evaluated by each participant on the basis of whether or not it meets each of the criteria.
2. Preference Ranking. The participants are asked to rank order products according to preference.

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*This series of rotating discussions developed as part of CULAS will also be used in Phase I of Planned Change to elicit descriptions of possible parental roles.

3. X-est. Participants are asked to choose the product which best fits each of the top five criteria.
4. Judged-Similarity. Participants consider the products in pairs, and indicate whether or not they are similar. When this task has been completed, participants indicate which features are shared by similar products.

Phase III: Analyze Data and Report. The objectives of this phase are to (a) determine the performance of a large number of educational products in terms of cultural appropriateness, and (b) ascertain the extent to which variations in responses can be related to ethnic group membership and/or other variables (e.g., rural-urban location of parent). The hypotheses are that (a) certain sub-populations within each ethnic group have different concerns and interests than whites with relation to education for their children, and (b) sub-populations within and between ethnic groups have different interests and concerns. Groups or subgroups are expected to vary in their evaluations of the products.

Data from the evaluative tasks will be compiled and analyzed in order to determine:

1. If the yes-no questions yielded significant differences among specific population groups on each product;
2. Mean rankings of each product for the total group as well as for each specific population within the different ethnic groups on the preference task;
3. The performance of each product on each of the top and bottom five criteria based on the X-est task.

The judged-similarity data will be used primarily for extracting criteria to be used in the next workshop. Thus the data analysis will include (a) a summary of the performance of each product on each task for each specific population, and (b) a description of the agreement between and within specific populations.

Reports will be written to summarize evaluation data from the symposium and discuss their implications, and to discuss the symposium in terms of (a) how well it served as a procedure for evaluating the appropriateness of educational products for children of diverse cultural backgrounds; (b) how CULAS could be improved to better meet this objective; and (c) whether CULAS still has potential as:

1. A selection process for communities desiring educational material appropriate to unique populations;
2. A means of facilitating decision-making by parents about the education of their children;
3. A process for identifying and defining salient components of experience bases of specific populations of non-white children;
4. A mechanism by which community-generated educational programs and products can be realized.

Anticipated Products of Parental-Inclusion Component

During the first five years of activity, a number of knowledge products will be produced. In areas where developmental work proves feasible, the preliminary form of developmental products will be produced and tested. If the products are effective, it is expected that their use will:

1. Bring clarity to the role, function, and importance of the parental linkage agent;
2. Provide insight into the process of installing parental roles in educational institutions in a planned way;
3. Serve as a source of information for other developers who are interested in identifying institutions of higher learning with new

and innovative parental programs;

4. Provide models for courses of study which can be used to train parents; and
5. Provide valuable information for educational developers about the perceptions of various low-income parents with respect to the cultural appropriateness of educational products, and specifications for new products.

It is anticipated that the following products will be available at the end of this first program year:

1. Planned Change: A prototype description of the role and functions of the parental linkage agent.
2. Alternative Routes to Credentialing: Material listing and describing institutions of higher learning which are implementing new and innovative parental programs.
3. Cultural Appropriateness Symposium: A report which describes and evaluates the pilot CULAS; actual evaluations made by parents of the cultural appropriateness of a number of currently used educational products.

At the end of the second year of program activity, we anticipate that the following products will be available:

1. Planned Change: A more accurate description of the role and functions of the parental linkage agent.
2. Alternative Routes to Credentialing: (a) An updated list and description of institutions of higher learning which are implementing new and innovative parental programs; and (b) a prototype course of study for linkage agents.
3. Cultural Appropriateness Symposium: A revised CULAS procedure;

evaluations made by low-income parents of the cultural appropriateness of a large number of currently used educational products.

In addition to the products described above, we anticipate that the following products will be available at the end of five years of program activity.

1. Planned Change
    a. Specifications for the role and function of linkage agents.
    b. An evaluation of the performance of linkage agents in at least five school districts.
    c. Descriptions of additional work necessary to improve the functioning of linkage agents in local school districts.
2. Alternative Routes to Credentialing: A course of study consisting of 24 training modules for training parents in the role of linkage agents.
3. CULAS: Parental evaluations of the cultural appropriateness of most educational products used in their respective school districts; a set of parental-preferred specifications for educational products.

As noted above, in areas where developmental work appears justified, the preliminary form of developmental products will be produced and tested. It is somewhat premature, if not impossible, at this time to specify the nature of these products. However, as each decision-point or milestone is reached, the program staff, working with the advisory bodies of the Laboratory, will carefully evaluate the work which has been completed and any additional work which appears to be indicated, and consider any possible changes in strategies which should be used to achieve the program's objectives.

The work schedule and milestone schedule for completion of this work is presented on page XX. Associated costs are presented on page 124.

The Home-School Similarity Component

The ethnic minority child enters school with an experience base--a relatively stable set of codes, values, skills, information, beliefs, and behaviors--which is often negatively perceived by school authorities and thereby not exploited in teaching the child to master skills and competencies valued by the school. The experience base shaped by the child's home environment is the framework for the development of new skills. The school's inability to acknowledge it as the starting base for the development of new knowledge and skills has an adverse effect on the child's future learning. The school sets unrealistic expectations for the child, and the child develops unacceptable mechanisms for coping with the school environment. Alienation between home and school grows and the school is viewed as increasingly unresponsive and irrelevant to the community's needs.

There is a need, therefore, to restore the links between home and school and to reduce the dissimilarity between home and school environments. Work in this component will focus on gathering information about the knowledge and culture of low-income children in order to provide educators with the tools and foundations they need to generate learning environments for low-income ethnic minority children which are consistent with their home environments.

Program work will be organized into four different areas of activity:

1. Home-School Dimensions will focus on collecting the information and tools necessary for educators to provide more effective learning activities for low-income children and to assess more accurately their skill development.
2. Locus of Control will provide information necessary for educators

to structure learning environments which promote the development of internal beliefs of control over the learning situation and skill development.

3. Readability will provide educators with the foundation and tools needed to alter aspects of the learning environment which adversely affect verbal development of minority group children.

4. Communicative Competency will focus on planning and implementing strategies for further development of low-income children's linguistic competency.*

The objectives and phases of these four activity areas within the component are discussed below.

Home-School Dimensions

The objectives of work in this area are to obtain information about (a) the home environments of low-income children of various ethnic minority backgrounds, and (b) the aspects of the school environment which contrast with the children's home environments.

Work will be organized into the following phases:

Phase I:	Pilot Study of Behavioral Dimensions of Home and School Environments of Low-Income Urban Black Children
Phase II:	Study of Behavioral Dimensions of Home and School Environments of Low-Income Urban Black Children
Phase III:	Study of Salient Dimensions of and Preferences for Alternative Physical Environments in Learning Situations for Low-Income Urban Black Children
Phase IV:	Study of Behavioral Dimensions of Home and School Environments of Low-Income Rural Navajo Children
Phase V:	Study of Salient Dimensions of and Preferences for Alternative Physical Environments in Learning Situations for Low-Income Rural Navajo Children

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*Sociolinguistic competence refers to the kinds of social and linguistic knowledge that a speaker must command to speak 'appropriately' in different social contexts.

Phase VI:	Study of Behavioral Dimensions of Home and School Environments of Low-Income Urban Oriental-American Children
Phase VII:	Study of Salient Dimensions of and Preferences for Alternative Physical Environments in Learning Situations for Low-Income Urban Oriental-American Children
Phase VIII:	Study of Behavioral Dimensions of Home and School Environments of Low-Income Rural Chicano Children
Phase IX:	Study of Salient Dimensions of and Preferences for Alternative Physical Environments in Learning Situations for Low-Income Rural Chicano Children
Phase X:	Study of Behavioral Dimensions of Home and School Environments of Low-Income Urban Latino Children
Phase XI:	Study of Salient Dimensions of and Preferences for Alternative Physical Environments in Learning Situations for Low-Income Urban Latino Children
Phase XII:	Dissemination and Utilization Study

Phase I: Pilot Study of Behavioral Dimensions of Home and School Environments of Low-Income Urban Black Children. The pilot study has been completed (see Appendix B). The information acquired indicated differences between the home and school in:

1. Behavioral management (discipline techniques),
2. Behavior managed (behavior disciplined),
3. Behavior valued by the adults,
4. Roles played by adults versus children in decision-making,
5. Children's problem-solving strategies,
6. Children's problems, and
7. Children's behavior.

On the basis of the pilot study, further areas of interest have been defined and instruments to be used in Phases II, IV, VI, and VIII have been tested and revised.

Phase II: Study of Behavioral Dimensions of the Home and School Environments of Low-Income Urban Black Children. During this phase, the program staff will study in depth four dimensions of behavior which were identified in the previous pilot study: behavior valued at home, familiar behavior management techniques, allowed range of options, and use of problem-solving strategies. The importance of these dimensions is discussed below.

Behavior is managed primarily by verbal and nonverbal cues, physical structuring of the environment, and the utilization of rewards and punishments. As a child is exposed to an environment and its behavioral management techniques, he quickly learns which behaviors are appropriate and valued, and which are inappropriate and negatively valued. The behaviors that a child uses to explore his environment, express himself, and fulfill his needs have been developed in the context of his home environment. In order to create an effective learning environment which avoids needless conflict for the child and builds upon his developed proficiencies, the child's educators must be aware of the behaviors which are expected and valued in the child's home environment. In assessing the potential value of particular learning activities, educators must recognize patterns of behavior which would conflict with the child's home environment, and be able to assess the cost of pursuing these conflicting activities.

A second dimension of behavior to be further investigated is that of behavioral management techniques. Techniques used in the learning environment may often fail because the child from a non-middle-class home has been exposed to a different set of management techniques. The educator who uses behavioral management techniques that are familiar to the child and in keeping with the child's perception of the educator's role is more likely to communicate effectively with the child.

The third dimension to be investigated is the range of options that a child is allowed and the role that the child is permitted and/or required to play in making decisions which affect him. If there is a lack of continuity between the home and school environments in this dimension, the school is either inappropriately or foolishly (in the child's eyes) restricting the child if the child has greater freedom at home, or else expecting too much of the child if the child has less freedom at home. Again the educator must assess the effects of imposing or not imposing unaccustomed restrictions upon the child's behavior.

The fourth area of behavior to be studied is the use of problem-solving strategies. In the home, certain strategies are encouraged in the child while others are repressed or discouraged. If problem-solving strategies that are not in the child's repertoire are expected in the classroom, it is likely that the educator will be disappointed and his plans will to some extent be irrelevant. If, on the other hand, the educator does not recognize the child's customary strategies as valid, the educator's resources will be used to repress such strategies and the child will be forced to make a time-consuming and possibly disruptive adjustment. In order to assess the net cost of maintaining his expectations, the educator should be aware of the child's repertoire of problem-solving strategies.

Information about these four dimensions will be collected by means of structured observations of children and semi-structured interviews with the parents and teachers of each child. Observation and interview schedules are included in Appendix E, pages 1-4. The sample will consist of 160 low-income Black students randomly selected from grades K, 1, 2, and 3 (10 students from each grade) in two different schools chosen at random in two urban areas. Each child will be observed both at home and at school by trained observers. Semi-structured interviews will be conducted with the mothers and teachers of the children to elicit indications of salient dimensions of behavior and associated values. Interviews will also be conducted with the children. Locus of control measures developed by program staff will be administered to the children.

Data from the observations, interviews, and locus of control measures will be compiled and analyzed along with demographic data on the child and his family. The analysis will focus on (a) identifying those dimensions which differ between home and school and the extent to which they differ; and (b) relating these differences to demographic data, locus of control scores, and IQ-achievement scores of the child. We anticipate that marked inconsistencies between home and school will tend to correlate with school achievement (as measured by the standards of the evaluative context--the school) and locus of control beliefs of the children.

Phase III: Study of Salient Dimensions of and Preferences for Alternative Physical Environments in Learning Situations for Low-Income Urban Black Children. In the last decade, educational innovators, using Montessorian, Piagetian, and Skinnerian concepts, have produced a plethora of experimental programs for non-middle-class children. Most programs, however varied in structure and content, continue to be implemented in traditional physical environments. As a result of inattention, we know little about the effects of the traditional physical environment on various populations, and we are unable to assess how well, if at all, the traditional learning environment is suited to various students and activities. Thus, the objective of this phase is to explore and develop the concept of the physical environment as a mediating factor in human learning and development.

Research has indicated that knowledge about the nature of the world is dependent on sensory experience with physical objects of the environment (Plihal & Brown, 1969). As a child moves through his home environment, he assimilates and organizes experiences which provide a basis for future development and exploration (Stephens, 1969). As the child explores his environment, he learns that different behavior is expected in different spaces, that some objects are "good" while others are "bad" and that some places are friendly while others are hostile (Beele, 1967). The child selects, organizes, and endows with meaning only those cues which are relevant for him at the time or which are regular parts of his experience (Golledge & Zanneras, 1970). Thus, it is not surprising that meaningful associations with the physical objects of the environment tend to be shared among individuals with a similar cultural background (Beele, 1967).

By the time children reach school, they have acquired knowledge and feelings about spaces and objects which mediate their responses to the physical aspects of the learning environment. They are responsive to cues in the learning environment indicating what behavior is appropriate, whether or not the environment is friendly or hostile, and the nature of the various roles and status of individuals.

Educators who structure learning environments usually do so on the basis of their own orientations toward physical objects and spaces which have been acquired, by-and-large, in an environment similar to that of their white middle-class students. Because students from non-white middle-class home environments have had different experiences, it is reasonable to suppose that the impact of the physical aspects of the traditional learning environment on these students differs from that of the white middle-class child.

In order to collect information on the dimensions of the physical environment which are salient to low-income children, interviews will be conducted with low-income Black children in grades 2-5 randomly selected according to the method described in Phase III. The interview schedule is included in Appendix E, page 5. The interviews will attempt to elicit a list of dimensions (e.g., illumination, size, room configuration, etc.); a list of activities (e.g., study, have serious talks); and the frequency of occurrence of both. When this information has been compiled, program staff will develop prototype stimuli which vary along the dimensions identified as significant by the children. These prototype stimuli will be matched with descriptions of activities (e.g., a good place to study, a good place to have serious talks) in order to determine the appropriateness of the various dimensions for the various activities.

Findings could be expected to take the form: "For urban Black children, a bright room seems preferable for working on problems; for low-income Black children, a circular arrangement of discussion participants seems to be most appropriate for discussion sessions." As the analysis is completed, it will be possible to structure a learning environment which is physically appropriate and facilitative to learning for a specific population of low-income children.

Remaining phases. The remaining phases of work on Home-School Dimensions which are identified on page 64 will be carried out in the same manner as Phases II and III; however, they will focus on collecting information about the behavioral dimensions of home and school environments and the salient physical dimensions of learning environments for the following low-income populations: rural Navajos, urban Oriental-Americans, rural Chicanos, and urban Latinoes. Phase XII (Dissemination and Utilization Study) will be conducted within the Application and Utilization Component, discussed on pages 100 through 105 of this plan.

Locus of Control

The objective of work in this area is to provide educators with (a) an awareness of the nature of the locus of control variable and its relation to learning; (b) an awareness of conditions known to promote internal beliefs versus external beliefs; (c) the means to assess the type of control beliefs that particular learning environments facilitate; and (d) information about alternative programs and strategies which tend to promote internal control and discourage external control.

Work in this area will be organized into the following phases:

Phase I: Review of the Existing Work on Locus of Control

Phase II: Development of a Diagnostic Measure Which Can Be Used to Assess Control Beliefs in Particular Learning Environments

Phase III: Determination of Conditions of Learning Environments Which Affect Control Beliefs of Urban Black Children

Phase IV: Determination of Conditions of Learning Environments Which Affect Control Beliefs of Rural Navajo Children

Phase V: Determination of Conditions of Learning Environments Which Affect Control Beliefs of Urban Oriental-American Children

Phase VI: Determination of Conditions of Learning Environments Which Affect Control Beliefs of Rural Chicano Children

Phase VII: Determination of Conditions of Learning Environments Which Affect Control Beliefs of Urban Latino Children

Phase VIII: Specification of Procedures To Ascertain the Extent to Which Conditions Identified in Phases III-VI Exist in a Learning Environment

Phase IX: Dissemination and Utilization Study

Phase I: Review of Existing Work on Locus of Control. Work in this phase has already been completed. The staff report included in Appendix A (Johnson et al., 1971) reviews the existing literature and research on locus of control and discusses its relation to education. The information acquired in Phase I will be the basis for developing a diagnostic measure of control beliefs (Phase II) and for determining environmental conditions which affect control beliefs of specific populations (Phases II-VII).

Phase II: Development of a Diagnostic Measure of Learning Environments. As indicated in the review of literature and research (Johnson et al., 1971), two major approaches have been used in research on locus of control. The first approach stresses control beliefs in specific situations and the second approach focuses on generalized expectancies or, in other words, control beliefs which apply across many situations. Research has indicated that although an individual has a general tendency to have either internal or external beliefs of control, this general pattern may not apply to certain specific situations (Rotter, 1966; Holden & Rotter, 1962). For example, a child who believes that he generally controls what happens to him may also believe that he does not control what happens to him in a mathematics class in school.

Our work with the locus of control variable will attempt to (a) measure children's beliefs of control in a specific situation--the learning environment and (b) relate these beliefs to children's general expectancies of control. Accordingly, we will develop a diagnostic device which consists of two instruments: first, a measure of the locus of control beliefs concerning a specific situation--that of the learning environment (referred to as the CECB--Children's Education-Control Beliefs); and secondly, a measure of the locus of control beliefs concerning a wide range of situations (referred to as the CLCB--Children's Life-Control Beliefs).

Measures of both types currently exist. The Coleman items (Coleman et al., 1966), for example, focus on very general situations (e.g., life), while the Crandall Intellectual Achievement Responsibility Questionnaire (Crandall et al., 1962) deals with school-related situations such as taking a test. However, as Entwisle and Greenberger (1970) indicate, these measures may not be appropriate, valid, or reliable across all groups.

Entwisle and Greenberger do indicate that for low-income individuals the general items (Coleman) appear to be more reliable than the specific items (IAR). The Coleman items are phrased in a general way which is likely to have relevance across subgroups; the IAR items, on the other hand, focus on fairly specific situations, means of affecting situations, and outcomes which may not have meaning across subgroups.

In addition, the language and situations of the IAR questionnaire appear to be more appropriate for white middle- and upper-class individuals than for individuals of a different social class and/or ethnic group membership. For example, Item 24 of the IAR reads:

> If a boy or girl tells you that you are bright, is it usually:
>
> a. because you thought up a good idea, or
>
> b. because they like you.

The comment referred to is probably not one that the members of a Black child's peer group would be likely to make (Johnson et al., 1971). Thus, the item and others like it would tend to be meaningless to Black children.

In constructing a measure of locus of control that is both valid and reliable, it appears to be imperative that the measure be culturally appropriate and meaningful to the respondents. The items must reference situations, outcomes, and ways of affecting situations that are salient to the respondent and the items must be phrased in language with which the respondent is comfortable. Thus, we plan to generate items for our measures from responses given by individuals of the same background and ethnic group as those individuals who will eventually be respondents to the measures. The measures will focus on the school situation and on the portions of the life situation which the respondents perceive as important.

Separate measures of locus of control will be generated for the parents, teachers, and children of the following populations: urban Blacks, rural Navajos, urban Oriental-Americans,rural Chicanos, and urban Latinoes. Each measure will consist of two parts: Life-Control Beliefs and Education-Control Beliefs.

Interviews will be conducted with a random sample of the target population (e.g., 30 urban Black students, age 9 to 12; 30 urban Black parents; 30 teachers of urban Black children) and used to generate 100 test items. Interview schedules are included in Appendix E, pages 6-9. These items will be administered to a sample of the target group along with the Coleman items. Test results will be subjected to item and factor analyses in order to select the final test items. Further testing and analyses will be conducted in order to determine test reliability and the existence of any sub-scales (e.g., achievement, affection, positive versus negative outcomes, etc.).

Phase III: Determination of Conditions of Learning Environments Which Affect Control Beliefs of Urban Black Children. Little is known about the aspects of a school situation which are critical with respect to control beliefs. However, the pilot study on home-school dimensions (see Appendix B) and the review of research and literature on locus of control suggest a number of hypotheses, including:

1. The greater the consistency between the home and school environments, the more internal the child will tend to be about the learning situation (Blackman, 1962; Johnson et al., 1972; Partel et al., 1970);
2. Teachers' control beliefs about a learning situation will tend to be directly correlated with their students' control beliefs about the learning situation (Phares, 1965; Fuchs, 1967; Rosenthal & Jacobson, 1968);
3. The control beliefs of children will tend to vary directly with the control beliefs of their parents (Rotter, 1966);
4. The wider the range of options given the child in the classroom, the more internal the child will tend to be about the learning situation.

Though there are undoubtedly other factors determining whether or not a child feels that he can influence the outcome of a learning situation, we believe that the four we have outlined--(a) the amount of consistency between the home and school environments, (b) teachers' control beliefs about the learning situation, (c) parents' control beliefs about the learning situation, and (d) the range of options that the child has in the classroom--will tend to "explain" the majority of variation in children's control beliefs about the learning situation. In other words, we are hypothesizing that the majority of variation in the differences between control beliefs with regard to the school situation and general control beliefs can be explained by these four variables.

Information will be collected about these four variables in the following manner:

1. Degree of consistency between home and school environments will be assessed by (a) using the Home-School Differences Scale (Appendix E, page 10) to determine the degree to which a child's home environment differs from that of the white middle-class home (Johnson et al., 1972); and (b) using the Consistency Efforts Scale (Appendix E, page 11) to determine whether or not the school includes educational strategies and programs which would tend to bring the school more in line with the home environment. These two measures will be combined to yield a single score.
2. Control beliefs of the teachers concerning the classroom situation will be measured by the test developed during Phase II.
3. Control beliefs of the parents concerning the school will be measured by the test developed during Phase II.
4. The range of options open to a child in the classroom will be measured by the Option Checklist (Appendix E, page 12).

These measures will be administered to four samples of children and their parents and teachers: 100 fourth-grade Black boys, 100 fourth-grade Black girls, 100 sixth-grade Black boys, and 100 sixth-grade Black girls. The samples will be selected from classrooms which appear to vary in a number of ways including community-controlled schools, schools with paraprofessional programs, schools which have no special programs and so forth. In selecting the samples, careful consideration has been given to age and sex variables as indicated by research by Crandall (1962, 1965), Coleman (1966), Entwisle and Greenberger (1970), and Battle and Rotter (1963).

Analyses of the resulting data will focus on determining (a) the importance of each of the four variables with respect to locus of control beliefs about the classroom situation, and (b) the relationships among these variables.

Phases IV, V, VI, and VII. These phases will be carried out in the same manner as Phase III; however, attempts will be made to determine the conditions of the learning environment which affect control beliefs of rural Navajo children, urban Oriental-American children, rural Chicano children, and urban Latino children, respectively.

Phase VIII: Specification of Procedures To Ascertain the Extent to Which Conditions Identified in Phases III-VII Exist in a Learning Environment. The nature of work in this phase will be determined largely by the information collected in Phases II-VII. Resulting data will be used to assess the effects of some innovative programs and organizational strategies in bringing about the conditions which have been determined to be critical to internal beliefs of control. For example, if parents' locus of control beliefs are determined to be a crucial variable, we might be able to indicate that parents involved in a community-controlled school tend to have more internal control beliefs about the school situation than parents in a more traditional school.

For each crucial condition, tables will be prepared summarizing the relationship of that variable to the presence of special programs within the school. Program staff will then prepare a list of programs and means for altering the learning environment so that it includes or avoids a condition as the case may be. Finally, program staff will develop a procedure which can be used to assess the presence or absence of a critical condition in a particular learning situation.

Phase IX: Dissemination and Utilization Study. This phase will be conducted within the Application Component, discussed on pages 100 through 105.

Readability

The objectives of work in this area are to develop (a) basic word lists for low-income urban Black children, low-income rural Navajo children, low-income Oriental-American children, low-income rural Chicano children, and low-income urban Latino children; (b) readability formulas for each ethnic group referred to in (a); and (c) specifications for a procedure to develop a basic word list and readability formula for any specific population of children.

Work will be organized into the following phases:

Phase I: Develop Basic Word List and Adjusted Readability Formula for Low-Income Urban Black Children

Phase II: Develop Basic Word List and Adjusted Readability Formula for Low-Income Rural Navajo Children

Phase III: Develop Basic Word List and Adjusted Readability Formula for Low-Income Urban Oriental-American Children

Phase IV: Develop Basic Word List and Adjusted Readability Formula for Low-Income Rural Chicano Children

Phase V: Develop Basic Word List and Adjusted Readability Formula for Low-Income Urban Latino Children

Phase VI: Determine Readability Levels for Urban Black Children of Widely Used Reading Materials and Available Black Materials

Phase VII: Determine Readability Levels for Rural Navajo Children of Widely Used Reading Materials and Available Navajo Materials

Phase VIII: Determine Readability Levels for Urban Oriental-American Children of Widely Used Reading Materials and Available Oriental-American Materials

Phase IX:	Determine Readability Levels for Rural Chicano Children of Widely Used Reading Materials and Available Chicano Materials
Phase X:	Determine Readability Levels for Urban Latino Children of Widely Used Reading Materials and Available Latino Materials
Phase XI:	Dissemination and Utilization Study

Phase I: Develop Basic Word List and Adjusted Readability Formula for Low-Income Urban Black Children. A basic word list should contain words which are familiar in print to a large number of the individuals for whom the word list is supposedly basic. Word lists are generally developed on the basis of (a) frequency counts of oral or written usage and/or (b) sight recognition or familiarity to individuals at a particular level of reading. Lists based solely on frequency counts have a serious limitation. Frequency of usage studies usually show that relatively few words constitute the majority of word occurrences, with a large number of words occurring relatively infrequently (Dale, 1956; Durr, 1970; Horn, 1954). Durr's study of 80 popular library books for children, for example, revealed that 188 words were repeated so often that they comprised 70% of the total number of 105,280 words. As a result of this typical frequency distribution pattern, word lists based on frequency counts are either very short lists of high frequency words or longer lists including low frequency words chosen in a relatively arbitrary fashion.

In generating our word list, a two-step procedure will be used: first, a large word pool based on oral usage will be developed, and then after systematic testing with fourth-grade children, the word pool will be reduced to a list of basic words. The initial word pool will be derived from 100 stories told in response to stimulus photographs of community scenes and people by a random selection of 11 Black students in each of grades 4 through

12. A word pool of 4500 words will be built from the recorded stories. A large word pool will be developed because research (Klare, 1963; Power et al., 1958; Dale & Chall, 1948) indicates that completeness of the word list is an important parameter of the efficiency of readability formulas.

The word pool will be divided into 13 lists of approximately 350 words each. The words will be tested for familiarity by conducting pilot interviews with 30 Black fourth-graders in which each child will be asked to read the list aloud, and then to make up a sentence for five words on the list. As the words are tallied (an Interview Tally Sheet is included in Appendix E, page 13), any word which meets the criterion of familiarity to 24 of the 30 children will be included on the final word list.

Using the Dale-Chall readability formula (Dale & Chall, 1948) substituting the Black word list for the Dale 3,000 word list, the elicited stories will be assigned a readability level and grouped according to grade level. Validity of placement will be tested by having a random sample of 15 students from each of grades 3 through 12 read the stories aloud. According to the Dale-Chall procedures, the word difficulty factor and sentence length factor will be computed for each story, and on the basis of these measurements, an adjusted formula for grade level and readability will be calculated.

Phases II-V. These phases will be carried out in the same manner as Phase I; however, the samples will consist of rural Navajo children, urban Oriental-American children, rural Chicano children, and urban Latino children.

Phase VI: Determination of Readability Levels of Widely Used Reading Materials and Available Black Materials for Urban Black Children. During this phase, the program staff will prepare (a) a list of readers and reading materials currently being used with Black children, and (b) a list of ethnic materials which are available. The latter list could include the stories generated by students in Phase I as well as innovative textbooks and other curricular materials. The adjusted readability formula based on the Black word list developed in Phase I will then be used to compute readability scores for a sample of the materials. The same procedures will be used in Phases VI-X in assessing readability for rural Navajo children, urban Oriental-American children, rural Chicano children, and urban Latino children.

Phase XI: Dissemination and Utilization Study. Work in this phase will be undertaken as part of the Application and Utilization Component.

Communicative Competence

Although the ultimate goal of the program would ideally be to develop a total program of language skills for children whose primary language is other than United States English, such an undertaking is clearly beyond our resources at this time. Indeed, development of such a program would perhaps be premature due to the lack of an adequate knowledge base and the tools which would be necessary for its implementation--particularly in the area of dialects of English. However, we hope to contribute to the eventual achievement of this goal by conducting feasibility tests and pilot studies in a number of areas, and by developing and testing preliminary forms of assessment devices and instructional materials which could be used within a language development program.

Therefore, work in this area during the time covered by this program plan will concentrate on the skills of speech comprehension (student and teacher) and speech production (student). Preliminary work will be undertaken in the following areas:

1. Developing sample materials on language for teacher trainers, teachers,

and children to increase their understanding of the varieties of language;

2. Developing sample materials for use in increasing sociolinguistic competence; and
3. Developing and conducting feasibility tests of techniques to assess bilingual and sociolinguistic competence of children who speak languages other than that of the middle-class classroom.

Work in this area will be organized into the following phases:

Phase I: Prepare a Position Paper on Theoretical Approaches to Language Development and Their Implications for Education

Phase II: Develop a Unit on Language and Dialect for Teacher Trainers

Phase III: Develop Materials for Teachers of Children Whose Primary Language Is Other Than "Standard" English

Phase IV: Develop a Unit on Language and Dialect for Early Primary Children

Phase V: Conduct Feasibility Study for Assessing Bilingual Competence

Phase VI: Develop Learning Episodes and Materials for Increasing Sociolinguistic Competence

Phase VII: Develop a Technique for Assessing Sociolinguistic Performance Capability in a Given Situation

Phase VIII: Dissemination and Utilization Study

Phase I: Prepare Position Paper on Theoretical Approaches to Language Development and Their Implications for Education. A preliminary draft of this paper has been completed. The topics of discussion are:

I. Conceptual Models of Language
    A. Associational-chain theories
    B. Phrase structure grammar

- C. Transformational grammar

II. Language Acquisition
- A. Nature-nurture (language-specific/innate characteristic of organism)
- B. Research on language acquisition
- C. Developmental pattern of language growth

III. Social Context of Language Acquisition
- A. Interaction of language and social variables
- B. Development of communicative competence

IV. Neglected Areas of Research
- A. Language acquisition in ethnic children
- B. Productive competence in the classroom for low-income children

The paper is currently being revised; the analysis of theoretical approaches and their implications for education will be used as a basis for selecting the theoretical orientation and defining the problems in Phases II through VII.

Phase II: Develop Unit on Language and Dialect for Teacher Trainers. The notion that many ethnic children speak inferior varieties of English is ingrained in the dominant American culture and in the school environment. When the varieties of language spoken by ethnic children deviate sharply from the prestigious dialect of the area, the assumption (often made by teachers) is that the child is deficient in language development and/or intellectual capability.

Historical explanations of "inferior" speech include beliefs in inferior genetic endowment, inferior or different speech physiology (the lips, the tongue, etc.), and an inferior learning environment in the slave culture or inadequate exposure to correct English. Contemporary explanations still contain the notion that the varieties of English spoken in the Black communities are "inferior" forms of communication and intellectual functioning. Either the social environment of the person is deficient, he is "lazy," or he has learned poor speech habits.

It is only recently that this viewpoint has been challenged (Labov, 1970) Further study of language has indicated that divergencies between two patterns of speech do not necessarily reflect speech "errors" or incomplete mastery; rather, they may merely reflect systematic differences in codes which are nonetheless rule-governed in the same way as the standard variety of speech in an area. Labov and his associates have shown that the language code acquired by ethnic minorities, though it may be dissimilar from the prestigious dialect of the area, is a complete system of communication for its users with all the grammatical and logical relations of language.

Similarly, it has been shown (Slobin, 1970) that the social context within which ethnic minority children learn language, and the pattern of their acquisition of language is perfectly normal. Each child learns the variety of language spoken in his home and later in his peer group. The acquisition process is similar across ethnic boundaries.

Thus, it is very important to develop materials which will help teachers (a) in accepting the pattern of speech of a child as valid, and (b) in avoiding negative evaluations of the child based only on his speech patterns. Work in this area will focus on developing

1. Materials which describe and explain the varieties of spoken English, including regional and ethnic patterns;
2. Materials which discuss the fallacies in attitudes and perceptions of various dialects; and

3. A set of exercises which can be used to demonstrate the integrity and consistency within the various dialects.

Phase III: Develop Materials for Teachers of Children Whose Home Language Is Other Than "Standard" English. Norms operating in the classroom determine who speaks, when, to whom, in what manner ("standard" English), and on what subject. These norms may present conflicts for students who do not have the communicative competence to conform to the expectations of the teachers. Such norms may also present problems for teachers who are not familiar with the speech varieties of the children nor the norms which govern speech production. It is important, therefore, to familiarize teachers with the characteristics of the students' speech codes and to give teachers practice in comprehending and resolving problems which originate from conflicting patterns of speech.

Program staff will attempt to meet this need by developing videotapes of ethnic minority children using their natural speech patterns and codes in settings which are familiar to them. Transcriptions of the conversations will be prepared for teachers who have extreme difficulty in comprehending. These videotapes will be used by teachers in assessing their own comprehension and in gaining practice in understanding patterns of speech different from their own.

In addition, the staff will develop a series of videotapes which contain instances of cultural conflict expressed in language within the classroom. Emphasis will be placed on discussing alternative strategies and rationale for assisting children in conflict resolution.

Phase IV: Develop Unit on Language and Dialect for Early Primary Children. As a result of exposure to current myths which view languages and dialects from a narrow framework, children's perceptions of language and dialect differences often parallel those of adults. A minority child who is being negatively evaluated because of his language patterns may believe that the teacher's negative evaluation is indeed justified. Yet, dialect and language varieties represented within the classroom can be used as a source for providing children with another perspective and understanding of language and language variations.

A unit on language and dialect will be developed around a library of taperecordings of speech samples from various dialects and languages, including chronological variations in English. Sample learning episodes will be developed based on subsets of the taperecordings; these learning episodes will focus on different aspects of language, including language-dialect concepts, changes in language over time, etc. The unit will be used in the primary classroom both to study certain concepts in language and to increase the child's appreciation of the patterns within his language or dialect.

Phase V: Feasibility Study for Assessing Bilingual Competence. Strategies for developing sociolinguistic competence in the school (Phase VI) depend upon the child's knowledge of some dialect of English. For children whose primary language is other than English, it is necessary to assess their bilingual competence and perhaps to provide instruction in English as a second language before these children are able to profit from classroom instruction. The extent of bilingualism among children from the same neighborhood may vary considerably depending upon the language used in the home, exposure to television, radio, etc.

Assessment of bilingual competence is complicated by the various strategies that children use in testing situations. For example, a child who speaks English fairly well may choose to remain silent; another child may know less

English yet utilize what he does know very effectively in the assessment situation. Evidence of linguistic competence is also easily confused with sociolinguistic behavior; assessment based on samples of speech in natural settings is also subject to difficulties because the situations sampled may be perceived as more-or-less appropriate for use of English.

A study of the feasibility of assessing bilingual competence will be conducted with special emphasis given to evaluating language development in a natural and appropriate setting. Program staff will first generate a series of social settings available in the school context in which children can be asked to perform a sentence imitation task. A series of sentences will be generated and administered in the designed settings to a sample of children whose primary language is other than English. Summaries of task performance across the various settings will be prepared for each child. Settings and sentences will be modified as necessary and retested. If the assessment method proves feasible, an assessment device will be developed for use in evaluating bilingual competence.

Phase VI: Develop Learning Episodes and Materials for Increasing Sociolinguistic Competence. The middle-class norms of the classroom often inhibit the development of productive sociolinguistic competence in non-middle-class children (Labov, 1969; Baratz & Shuy, 1969). The unrealistic expectation that these children express themselves in the middle-class code, and the negative feedback they receive from speaking their own code inhibit the development of appropriate styles of expression. The children need more opportunity to acquire and practice alternative styles.

It appears to be necessary to develop strategies for restructuring the social environment in the school in order to provide opportunities for children to practice other styles of expression. Although the exact nature of the necessary restructuring is not known at this time, it is expected that work in Phases I through V will indicate the crucial social variables that influence styles of speaking. Results of Phases I through V will be incorporated into a general guide for teachers that will identify the crucial variables and suggest alternative means of dealing with them in the classroom.

Phase VII: Develop a Technique for Assessing Sociolinguistic Performance Capability in a Given Situation. Children's productive language capacity can be stimulated by exposure to a variety of sociolinguistic situations in which the usual classroom norms are relaxed (See Hymes, 1970). As a child develops in sociolinguistic competence, he should be able to perform in a greater number of situations.

In constructing an achievement/diagnostic test, a task has been selected--that of having the child paraphrase a story (originally told in middle-class dialect) with children and with one or more adults--which contains elements similar to many school situations. Performance in the two situations (with other children and with an adult) will be used as an indicator of sociolinguistic competence. Criteria used to measure level of competence will be: (a) number of indications of culture conflict (identified in Phase III), (b) number of story elements included in the rephrased version, and (c) number of questions about the story correctly answered. Criterion #1 indicates the presence of unresolved culture conflicts in production while criteria #2 and #3 indicate comprehension level.

A preliminary test of the procedure will be conducted with a small sample; the stories and situations will be modified and retested as necessary. If the procedure appears feasible as a means of testing sociolinguistic competency, the task will be expanded into a more complex measure and further developmental work will be completed.*

Phase VIII: Dissemination and Utilization Study. Work in this phase will be undertaken as part of the Application and Utilization Component, discussed on pages 100 through 105.

Anticipated Products of the Home-School Similarity Component

During the first five years of activity, a number of knowledge products will be produced. In areas where developmental work proves feasible, the preliminary form of developmental products will be produced and tested. If the products are effective, it is expected that educators and educational developers who use these products will become aware of their ability (and the need) to structure meaningful and effective learning activities for children of non-white middle-class backgrounds. We anticipate that their ability to restructure learning activities and learning environments will make them more effective in four different areas:

1. They will be more knowledgeable about the students' home environments and more aware of the need to build upon the previously acquired experience base of low-income children;
2. They will be more aware of and more able to structure learning environments and activities which support internal beliefs of control in low-income children;
3. They will be better equipped to assess accurately the reading level and language development of low-income children and to anticipate and avoid learning difficulties that result from inappropriate instructional materials.

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*See Appendix F for supporting paper.

4. They will be better equipped with knowledge and tools to implement alternative approaches which will promote language development of their minority group students.

We anticipate that the following products will be available at the end of the first program year:

1. Home-School Dimensions: At least one study of the salient dimensions of the home and school environments of low-income children.
2. Locus of Control: At least one prototype instrument for assessing (a) children's Life-Control Beliefs, (b) children's Education-Control Beliefs, (c) parents' Education-Control Beliefs, and (d) teachers' Education-Control Beliefs.
3. Readability: At least two prototype basic word lists.
4. Communicative Competence: Prototype materials on language for teacher trainers.

The following products should be available at the end of the second year of program activity:

1. Home-School Dimensions: At least two studies which compare salient dimensions of the home and school environments of low-income children.
2. Locus of Control: Prototypes of (a) five instruments to measure children's Life-Control Beliefs, (b) five instruments to measure children's Education-Control Beliefs, (c) five instruments to measure parents' Education-Control Beliefs, and (d) five instruments to measure teachers' Education-Control Beliefs.
3. Readability: Prototypes of five basic word lists.
4. Communicative Competence: Materials on language for teacher trainers, teachers, and early primary children.

As noted above, in areas where developmental work appears justified, the preliminary form of developmental products will be produced and tested. It is somewhat premature, if not impossible, at this time to specify the nature of these products. However, as each decision-point or milestone is reached, the program staff, working with the advisory bodies of the Laboratory, will carefully evaluate the work which has been completed, note any additional work which appears to be indicated, and consider any possible changes in strategies which should be used to achieve the program's objectives. The work schedule and milestone schedule are presented on page 114. Associated costs are presented on page 124.

The Teacher Training Component

During fiscal year 1971, Division IV of the Far West Laboratory for Educational Research and Development produced a Social Studies Core Curriculum Ensemble which consists of:

1. Four Social Studies Units:
    - A. Black American
    - B. Navajo
    - C. Chinese-American
    - D. Chicano
2. A Navajo Source Book
3. A Teacher Monograph
4. A Supplementary Book List
5. A Slide-Tape Presentation

The Ensemble differs significantly from material which is currently available to the schools in that is includes material from the ethnic groups at issue. Although there is great agreement about the need for such material, we are not satisfied that we have developed a product (a) that is consistent with the experience bases of low-income children, (b) that includes procedures which facilitate inclusion of low-income parents in the education of their children, (c) that describes ways and means of providing low-income children with competent educational managers who have insight into their ethnicity, and (d) that attends to ethnic environmental control, various language differences, and readability. Yet the need for products such as the Social Studies Ensemble is so great that we chose to bring it to the preliminary field test stage of the Laboratory product-development strategy.

Although we are presently preparing to field test subproducts of the Ensemble, it has become clear that the entire ensemble cannot be field-tested until a teacher training manual is developed. We also see the need to provide teachers with the tools and foundations that they will need to work effectively with parents in the role of linkage agents. Thus, work in this component has three objectives:

1. To develop a teacher training manual to accompany the Social Studies Ensemble;
2. To test and revise the Ensemble according to the Laboratory's product-development cycle;
3. To develop inservice training modules to help teachers interact effectively with linkage agents.

It should be noted that we are not proposing to develop additional Social Studies Ensembles at this time; rather we are requesting funds to complete work already under way.

Program work in this component will be organized into three areas of activity:

1. Develop Teacher Training Manual for inclusion in the Social Studies Ensemble;
2. Field Test the Ensemble;
3. Develop and Test Inservice Teacher Training Modules to assist teachers in interacting with parents serving as linkage agents.

Plans in each of these activity areas are discussed below.

Develop Teacher Training Manual

The Social Studies Ensemble presently consists of a Teacher Monograph, four social studies units at varying levels of development (e.g., one is in outline form; one consists of an outline plus source materials; and two consist of an outline, source material, and developed lessons), and a Supplementary Book List. We also have developed a slide/tape presentation which will be part of the teacher training effort. The nature of the curriculum materials, however, demands that careful attention be given to training the user, without the extensive involvment of Laboratory staff. The teacher training manual should (a) be task-oriented, (b) include sufficient instructions, (c) provide for teacher practice of specific behavior, and (d) describe ways in which the teacher can get immediate feedback.

Field Test Ensemble

Testing of the Ensemble and the teacher training materials will proceed according to the Laboratory's product-development strategy, which is described adequately in the section, Strategy. The Ensemble is presently undergoing preliminary testing; we anticipate that preliminary testing will have been completed by the end of the current fiscal year. We are assuming that completion of the testing, as well as work in our other components (and most particularly, that of Home-School Similarity) will provide us with an adequate knowledge base which will make it possible to revise the curriculum materials to produce truly culturally specific and appropriate instructional programs.

Develop and Field Test Inservice Teacher Training Modules

As teachers begin to work and interact with linkage agents (parents), it is likely that a range of fear and anxiety will become manifest. We base this assertion on three assumptions:

1. This new and unfamiliar role requires a new set of rules and images. Teachers without the natural proclivity to perceive parents in this new role will need assistance.
2. Many teachers have backgrounds which did not provide them with knowledge of and insight into various low-income peoples; thus they may have difficulty relating to adults who in many ways are different from them.
3. Professionalism may interfere with the optimum utilization of linkage agents unless teachers are brought to see ways in which linkage agents may be of value.

Because we maintain the importance of developing precise roles and activities for the linkage agent based on actual data, we cannot at this time indicate training modules or units which would be specific to the linkage role. However, we have identified four areas which would be basis to developing positive relationships between teachers and linkage agents. These four areas are identified and discussed below.

Understanding the contributions and life styles of the various ethnic, cultural, and economic groups. The teacher needs to understand ways in which cultures develop and change and how cultures share and borrow without losing their identity. The teacher must also have the ability to demonstrate a knowledge of the existence of divergent perspectives and life styles within ethnic groups. Furthermore, the teacher needs to demonstrate an understanding of basic philosophies which various ethnic groups have toward life, property, and others.

Recognizing and dealing with dehumanizing biases, discrimination, and prejudices. The teacher needs accurate knowledge and feedback about her own biases, discrimination, and prejudices. The teacher must be able to identify situations which are demeaning in the judgment of the linkage agent and/or children. In addition, the teacher must develop a sensitivity to and knowledge of the extent to which prejudice is harmful to young children, the mechanics of prejudice, and how she can deal positively with school situations involving biases, discrimination, and prejudices.

Creating learning environments which contribute to the self-esteem of all persons involved and to positive interpersonal relations. Not only will the teacher need to manifest the ability to create appropriate learning environments for the children that she is serving, but she will also need to demonstrate the communication skills to implement these environments and to help make them effective learning situations.

Respect human diversity and personal rights. Many teachers will need support and assistance as they begin to perceive human diversity as a positive value. This may mean aiding the teacher in identifying and interpreting behavior which she perceives to be different, and in behaving appropriately in social situations which are new to her.

In developing the inservice teacher training modules the program will be able to profit from the expertise and experience of other Laboratory programs, particularly those in the Teacher Education and Early Childhood Education Divisions. Development and testing will follow the rigorous procedures described in the Laboratory's product-development strategy and will be sequenced to make use of information gained in the Parental-Inclusion and Home-School Similarities Components. Such information will provide the staff with a valid base for further development and will result in inservice modules which will strengthen and complement program work to achieve its goal of renewing the links between home and school.

The work and milestone schedule for completion of work in this component is presented on page 114. Associated costs are included on page 124.

Program Planning and Direction Component

This component, obviously, is not a component in the same sense as the previous three components. The need for program planning and direction, however, is so basic to the accomplishment of the scope of work which we are proposing that we are requesting funds for the purposes described below.

Long-Range Program Planning

The present program plans have been developed in response to identified needs and problems. However, these needs and problems will change and new ones will come to exist. Program staff, therefore, must devote time to intermediate (3-5 years) and long-range (5-10 years) planning or much of the potential gain to be realized from a programmatic approach to development will not be realized.

The major outcomes of this work would be periodic long-range planning documents. Additionally, this work could result in revision of the program plans now being submitted or perhaps submission of a second program plan, if experience indicated such a change to be required.

Needs Analysis and Special Studies

Constant attention must be paid to gathering information about constantly changing needs in the area in which the program is working. The nature of the proposed program dictates that a number of feasibility and needs analysis studies be continually under way; however, these studies will be a part of program planning and re-direction (if necessary) rather than an integral part of developmental work.

Program Advisory Committee

Each Laboratory program has a Program Advisory Committee which consists of two Laboratory Executive Panel members and outside consultants. The Advisory Committee for this program consists of nine members and meets three times each year. Such review insures that the total program effort is still appropriate and efficient. Decision-making and planning resulting from these meetings are essential to the continued success of the program.

Component Relationships

Some management and administrative time must be devoted to coordinating the various components, and planning and directing the interaction of the components. In the case of the Home-School Linkage Program, this need is particularly acute; work in one component is essential to the progress and successful completion of work in other components. Information must be collected and organized simultaneously on parental perceptions, parental role functions, and the experience base of the child. Re-allocation of personnel and financial resources and adjusting of work schedules may be necessary in order to achieve component objectives and program goals.

Field Site Liaison

It will be necessary to establish and maintain liaison with other developmental sites and programs which are pursuing similar work. Information about the program must be disseminated, and division managers, program directors, and component leaders must devote some time to establishing informal links with other R & D institutions. When indicated, various kinds of cooperative or contractual links will be negotiated or developed to the point where planned work by these other institutions can properly be incorporated as part of the work and costs of a specific component of the program.

Program Review and Evaluation

Periodically the total program or aspects of the program will be reviewed and evaluated by personnel both internal and external to the Laboratory. Such reviews would, of course, be in addition to the collection of detailed information on the effectiveness and usefulness of the various specific program outcomes. External reviews will focus in particular on the milestone schedule described in the Evaluation section. Such reviews are essential to the successful and efficient completion of program goals.

Special Reports for USOE

The scope and complexity of the work sponsored by the funding agency across more than 20 different institutions inevitably creates needs for extensive information about the work of the institutions and programs. Much of this need for information can be and has been anticipated; e.g., program plans and revisions, annual budget and plans, and work progress reports. Other needs undoubtedly will arise over the next five years. While the work to produce and organize this information is clearly related to the program work management, it is not a part of the development and research work *per se*.

Program Staff Competency Development

The Laboratory is committed to upgrading and supporting growth in staff competence. Effective development and research work in education requires a wide range of management, administrative, professional and technical competence. Staffing for such an effort generally involves recruiting and identifying people at all levels who have some of these competencies, and have the capability and interest for acquiring additional skills.

The purpose of work in this area is to encourage training activities in a way that will be productive for the programs and the individuals. Staff members will be advanced on the basis of increased competence rather than formal qualification requirements. Indirectly, this activity will result in greater efficiency in the management, administration, and general conduct of program work. Program staff and program goals will both benefit from such training activities.

Application and Utilization Component

As indicated in the Milestone Schedule (page 114), work in this component will not be initiated immediately. The first two or three years of work in the components will produce knowledge products or, where justified, the preliminary form of developmental products. As program work progresses and the necessary information is collected and organized, work will be initiated as appropriate to apply the information to developmental work and to make plans for utilization of the resulting products. Although the exact nature of the application and utilization work will be dependent on the outcomes of program work during the next two to three years, it is possible to describe in a general way the principal considerations.

In order to achieve maximum dissemination and utilization, a study will be undertaken in each activity area to determine (a) the potential user populations (e.g., model developers, teachers), and (b) the most appealing and useful form(s) (e.g., training films, written materials, and consultant, publications of informative articles in widely read magazines with conferences for those interested, etc.) for the product(s), (c) the most cost-effective price (e.g., to avoid building a product which out-prices the market), and (d) alternative development courses of action.

This phase assumes that statements can be elicited from potential users with respect to questions such as:

1. How crucial is the potential product?
2. In what format would the potential user perceive the potential product to be credible?
3. What features must be embedded in the product to encourage the potential user to initially utilize the potential product?

4. What features must be embedded in the product to insure that the potential user will continue to use the potential product once he has used it initially?

As indicated in the work schedule (page 114), this work will be undertaken subsequent to amassing a sizeable body of knowledge but prior to undertaking product-development work. The assumption underlying this sequence is that this is the most strategic milestone in the transition from knowledge product to developmental product.

Planning for dissemination will require widely varying amounts of effort depending on the nature of the product form. Work on this stage of the product-development cycle is often initiated simultaneously with Stages 5 or 6 of the Laboratory product-development strategy and is ordinarily the joint responsibility of our staff and the Utilization Division staff. Dissemination planning usually involves identification of and negotiation with an external national distributor for production of the final product; occasionally the Laboratory may become involved in limited production of the final product.

A dissemination plan for products from the Renewing Home-School Linkage Program will be developed in five brief sections.

1. Characteristics of the products that affect dissemination,
2. Major dissemination issues,
3. Juxtaposing the major issues with alternative dissemination approaches,
4. Evidence collected to assist in a decision,
5. A proposed approach.

Product dissemination is an open-ended period during which the developed products are being distributed on a large-scale basis to users. The Utilization Division of the Laboratory has primary responsibility for this phase.

Product Characteristics

The eventual developmental products will be designed to be (a) self-contained, (b) part of a larger system, (c) appropriate for use in both pre-service training institutions and inservice programs within school districts, and (d) relatively inexpensive to the user. These four design characteristics have a direct bearing on dissemination planning.

Dissemination Issues

Assuming that the products are well-developed and accomplish their intent with users, their worth still is no greater than the extent to which they are easily available and within the financial resources of the users. Some major dissemination issues that respond to these two "use" criteria are discussed below.

The first issue is that of timing. Products under development are designed to be (a) self-contained and (b) part of a larger system. These two characteristics make it possible for individual products to be marketed as they are judged to be ready for release, or that all products could be held until the total system is ready for dissemination. For many reasons, it is not desirable to withhold products until the total system can be made available. Since the need for each set of developed products may be immediate, delay in releasing them just for the purpose of being able to evaluate the effects of the total system is not justified. Also financial support for development would likely disappear if product effects on educational practice are not demonstrated as soon as possible. Therefore, our dissemination strategy allows for individual marketing of products as they become available.

The second issue is that of production, storage, and handling of products. Obviously, a sufficient inventory of products must be available to prospective users. Therefore, a system whereby orders can be taken, filled, and shipped will be an integral part of our dissemination strategy.

Third, provisions for marketing are needed. These tasks include promotion, "sampling", motivating potential users of the products, and providing information on product benefits.

Fourth, many of the products, although self-contained, will rely on a local coordinator who may need some training to assure effective use of the materials. Therefore, at times, consultant help to advise a school district concerning use of products or to select and train coordinators will be necessary. The need for coordinator training and consultation is probably greater when the products are used by schools than it is for training institutions whose faculty members would play the coordinator role.

The fifth issue has to do with cost to the users. No matter how effective the product or how great the need for it, unless the user is willing to pay the price, the product will serve no practical purpose.

Alternative Approaches

Presently, we are considering three different alternatives to dissemination. They are:

> Commercial publishing firms. These firms would take the operational field test form of a product, edit and produce it, handle promotions and sales, and attempt to realize a profit.
>
> Professional associations. These associations would receive copies of a product in its release form (i.e., the edited and final form of a product, prepared and reproduced by the Laboratory), would promote the product and arrange workshops, and collect fees from purchasers/users to cover the cost of production and dissemination that was incurred by the Laboratory and the organization.

University extension. Most universities or colleges have a division which provides courses to people not necessarily engaged in a degree program. If production facilities could be made available (possibly through a university press) such an agency could promote through their usual advertisement, offer classes or workshops, and collect fees to defray costs to the extension.

Evidence for a Decision

Experience with field testing indicates that workshops for school staffs, state, regional, or national workshops offered by professional organizations, and training institution courses are all viable alternatives. However, a recent marketing study, conducted by the Utilization Division of the Laboratory, suggests the following:

1. The best market at present seems to be the college market through departments of education.
2. Marketing in the schools by a commercial firm probably would require that overall packages of products be marketed rather than individual products to offset cost of sales calls.
3. Due to the high cost of supporting salesmen, direct mail promotion is probably the best strategy.
4. Total cost of a product should not exceed $10.00 per product.
5. The products are regarded as "thin market" and thus may not be an appealing investment to commercial firms.

The Proposed Approach

Previous Laboratory experience indicates that a mixed strategy is appropriate for product dissemination. Schools could be encouraged via their professional organization to seek workshops for district staffs through a training institution.

Other dissemination approaches such as through renewal centers or specially designed dissemination centers presents possibilities. Such possibilities increase in importance with any effort to promote effective distribution and use in the schools. Despite a projected and relatively low cost to the user, these products still must compete with other needs in the school. Since most district funds are absorbed by operational costs, motivation for reserving inservice funds (regardless of long term benefits of cost-effectiveness) may be adequate. Therefore, it seems likely that both federal and state resources and influence to assist school personnel to upgrade skills will be required.

Program Evaluation

Evaluation is essential to provide information to support decision-making at every stage of educational product development -- from the early identification and definition of a need or problem and the designing of possible solutions to the actual implementation of the solution.

Particularly in the area of developing products and processes which improve the opportunities to learn for low-income ethnic minority children, evaluation has often been inadequate and has often resulted in ineffective and inappropriate educational products. Program work to date suggests that the inadequacy of such evaluation efforts has two probable sources: (a) an inadequate knowledge base for developmental work, and (b) the historical separation of low-income ethnic minority parents from the educational process of product development, product use (instruction), and product evaluation. Efforts in the Renewing Home-School Linkage Program, therefore, are focused on establishing this knowledge base and on involving parents in its establishment as well as introducing and implementing roles which will give parents real functions to carry out in the process of educational development, instruction, and evaluation.

Although the program is in its very early stages, evaluation is already an ongoing program activity and it will continue to be a vital part of program work. The formative or ongoing evaluation to be undertaken will include evaluation of (a) the input which will consist of a knowledge base about low-income children and parents and the perceptions of various stakeholders in the education process about the involvement of parents, (b) the strategy being pursued to make use of this knowledge base, and (c) the output which should achieve program goals.

Evaluation of the Input

As the first effort in the evaluation process, program staff have defined a number of facilitating objectives; preliminary processes and products will be evaluated in terms of the achievement of these facilitating objectives. Evaluation results will be used to refine the objectives and to add new objectives which seem indicated. Examples of these facilitating objectives within the first three components of the program are as follows:

Parental-Inclusion

1. Create and install the role of linkage agents in school systems;
2. Develop a model preprofessional training program or system of alternative routes to credentialing parents; and
3. Utilize the special knowledge low-income parents have about their children.

Home-School Similarity

1. Collect the information and tools necessary for educators to provide more effective learning activities for low-income children and to assess more accurately their skill development;
2. Provide necessary information for educators to structure learning environments which promote the development of internal beliefs of control over the learning situation and skill development;
3. Provide educators with tools and foundations needed to alter aspects of learning environments which adversely affect verbal development of minority-group children;

4. Plan and implement strategies for further development of low-income children's linguistic competency.

Teacher Training

1. Develop a Teacher Training Manual for the Social Studies Ensemble;
2. Test the Ensemble;
3. Develop materials which will help teachers understand and interact effectively with low-income parents serving as linkage agents.

It should be noted that these objectives have been greatly refined, both in terms of specificity of content (e.g., exactly what kinds of tools and foundations are required to promote verbal development of minority-group children), and in terms of specificity of ethnic group.

In order to determine if these facilitating objectives have been achieved, the following questions will be asked:

1. How significant are the problems that have been selected for study?
2. What problems, if any, have been overlooked?
3. Do the resulting knowledge products provide sufficient information for decision-making?
4. Is the information contained in the knowledge products valid from the point of view of low-income parents, children, and the community?
5. Is the information useful to further developmental work?
6. Does the problem appear to be "solvable" by the Far West Laboratory?
7. Are staff and financial resources adequate for providing a solution?

In responding to these questions, the program will make use of every possible resource, including outside consultants, expertise within the Laboratory, review and evaluation by advisory groups, and most importantly, by actively involving low-income parents and other members of the community.

Evaluation of Strategy

After answers have been obtained to the seven questions listed above, developmental work will be initiated in areas where it is justified. Developmental work (as indicated in the section on Strategy) will follow the product-developmental cycle evolved by the Laboratory. Although its precise application varies slightly among programs, in general, the cycle involves ten major developmental activities and four critical decision points. In addition, each of the developmental activities is broken into one or more specific steps as indicated in Figure 1 on page 31. Evaluation is an integral part of this product-development cycle.

Each developmental and knowledge product must be tested, modified, and retested until the product meets stated specifications. There are four major criteria of product evaluation that we shall use:

1. Each product or system will have a set of performance objectives associated with it. These objectives will be stated in terms of what the user will be able to do after using or when using the product. For a product to be considered successful, the evidence must indicate that it achieves its performance objectives.
2. For a product to be considered successful, it must usually have reached a level of development where it can be used by the target audience without assistance from Laboratory staff. To obtain evidence that this criterion has been met, each product will be tested with adequate samples of the target audience. Laboratory staff may act as observers, but not as active participants. If the product

achieves its performance objectives under the conditions of its operational testing, the second criterion is met.

3. Each product is reviewed by authorities from outside the Laboratory. Each authority studies the product and its performance objectives, reviews the data associated with the two criteria described above, and judges whether the product should be released for general use. He serves as an external auditor of the product's comprehensiveness, accuracy, and overall worth. If these external judges determine that the performance objectives of the product are worthy and that the evidence shows that the product is able to achieve those objectives, he recommends release. The Laboratory then follows through with its remaining internal "Product Review" procedures prior to actual product release.
4. We must always deal with the question of product "installation and use." A product may meet all the criteria described above, but it may still fail to gain full-scale acceptance or achieve the hoped-for utilization because it proves too expensive to acquire and/or maintain. Therefore, we must pay close attention to questions of cost-effectiveness and cost-utility from the moment of product conceptualization through all developmental stages. The main target of these inquiries are users and user systems.

When a product has met all the above criteria, it is considered to be successfully developed and ready for distribution to the target audience. As products are demonstrated to have met product development criteria, the probability of success of the entire program will increase.

We wish, here, to expand on the second criterion above (levels of development). Though operational testing is necessary to determine whether a product has met certain criteria of success prior to operational testing, each product must pass three kinds of tests: (a) a conceptual testing of the model, (b) prototype testing, and (c) field testing.

Testing the product at the model stage means a conceptual evaluation of feasibility. It involves the examination of product specifications, the examination of product specifications, the examination of the proposed alternative solutions that were (or were not) considered, and the evaluation of the rationale of the preferred/selected solutions. This testing is undertaken by the program staff, by a divisional panel of senior professionals, and by outside experts.

Prototype testing evaluates the first working form of the product; it is the reality of feasibility in which samples of target audience are involved.

Field testing is done to determine if the product can meet performance objectives. Larger samples of the target audience are employed and hard data are collected.

Operational testing requires that the product not only meet performance standards, but that it does so in a completely realistic setting without intervention by Laboratory staff.

Finally, product testing strategies are modified to fit the specific nature of the product or system under development.

Importance of Inclusion of Parents

Although the product-development cycle of the Laboratory will be rigorously followed, an extremely important consideration in evaluating the effectiveness of the strategy will be the active involvement of parents. Program staff will follow the development cycle in a flexible manner in order to allow the continual intervention and interaction of parents. Parents will be involved in determining the nature of the products which will be developed in responses to the needs. As techniques (e.g., CULAS and the Matrix Interview Technique) are developed during program work, they will be applied within the program to systematically elicit community reactions.

Evaluation of Output

In determining if, and to what extent, the program has achieved its objectives, internal and external review procedures will be used. The program will draw upon community resources, informed experts in R & D, and on experienced developers within the Laboratory. Effectiveness of the output or products of the program will be evaluated as part of the Laboratory's product-development cycle and answers will be sought to the following general questions:

A. Does our effort to create, train, install and maintain linkage agents in the schools remain a feasible strategy in the judgment of experts?

B. Does CULAS appear to be "proving out" as an effective process for assessing parental perceptions?

C. To what extent have the knowledge products yielded from activities such as Locus of Control of Reinforcements, Readability, Communicative Competence, and Home-School Dimensions aided in the making of programmatic decision?

D. Is there evidence that the knowledge products are positively affecting the education of low-income children?

E. Are our efforts to meet teacher needs as they interact with linkage agents, in fact, reducing teacher fear and anxiety and facilitating better relationships between lower linkage agents and schools?

In addition, a five-year work schedule incorporating "milestones" or strategic decision points has been prepared.

The milestones described in Figure 2 will serve as a basis for evaluation and as a technique for keeping track of progress and assuring that products will be developed within a reasonable period of time. All activities and products currently underway or planned for the next five years are included on this schedule. The ten stages of product development are shown at the bottom of the figure. Since stage "10" is openended, the completion of that stage is not shown on the schedule.

Because this is an ongoing program, products and activities currently underway during fiscal year 1972 are included on the schedule. The inclusion of 1972 is meant to clarify the overall sequencing of the various related products.

Figure 2

Renewing Home-School Linkage Program

Milestone Schedule

Components	Activities	1972				1973				1974				1975				1976				1977			
		M	J	S	D	M	J	S	D	M	J	S	D	M	J	S	D	M	J	S	D	M	J	S	D
									△ A				△ B				△ C				△ D				
Parental Inclusion	Planned Change				I		$\underline{1}$		$\underline{2}$		$\underline{3}$		$\underline{4}$				$\underline{5}$					$\underline{6}$			
	Alternative Routes				II		$\underline{1}$		$\underline{2}$		$\underline{3}$		$\underline{4}$		$\underline{5}$	$\underline{5}$							$\underline{7}$		
	CULAS				III		$\underline{2}$		$\underline{3}$				$\underline{4}$												
Home-School Similarity	Home-School Dimensions				IV	$\underline{2}$		$\underline{3}$		$\underline{4}$	$\underline{5}$		$\underline{6}$	$\underline{7}$	$\underline{8}$		$\underline{9}$		$\underline{10}$		$\underline{11}$				
	Locus of Control				V								$\underline{2}$	$\underline{4}$		$\underline{5}$		$\underline{6}$	$\underline{7}$				$\underline{8}$		
	Readability				VI	$\underline{1}$		$\underline{2}$		$\underline{3}$	$\underline{4}$		$\underline{5}$	$\underline{6}$	$\underline{7}$ $\underline{8}$	$\underline{9}$		$\underline{10}$							
	Communicative Competence				VII		$\underline{2}$			$\underline{3}$			$\underline{4}$			$\underline{5}$			$\underline{6}$			$\underline{7}$			
Teacher Training	S^2 C^2 E				VIII		$\boxed{3}$		$\boxed{4}$		$\boxed{5}$		$\boxed{6}$		$\boxed{7}$			$\boxed{8}$		$\boxed{9}$	⇒		10 ⇒		
	Training Modules						$\boxed{1}$				$\boxed{2}$			$\boxed{3}$				$\boxed{5}$	$\boxed{6}$		$\boxed{7}$	$\boxed{8}$	$\boxed{9}$	10 ⇒	

Laboratory Product Development Strategy

1. Conceptualization and Planning
2. Preliminary Product Development
3. Preliminary Product Testing
4. Preliminary Product Revision
5. Main Product Testing
6. Main Product Revision
7. Operational Product Testing
8. Operational Product Revision
9. Dissemination Planning
10. Product Dissemination

Numbers in squares refer to stages in the Laboratory Product development strategy. Underscored numbers refer to activity phases. Roman Numerals refer to work which is to be completed during fiscal year 1972. Letters which appear in triangles indicate milestone reviews. These reviews will be conducted by a review team consisting of two members of the Laboratory Executive Panel, two members of the Program Advisory Panel, and one reviewer who is not associated with the Laboratory. The Reports of these reviewers will become the basis for the annual program reports for the United States Office of Education.

Carrying Out the Program

A region including the Bay Area of Northern California and the nearby states is especially suited for a carefully planned full-scale research and development program in renewing home-school linkage. Through its people and institutions, the immediate vicinity of the Laboratory offers a rich resource of knowledge and opportunities for experiences across cultural and ethnic groups. Unique is the large multi-ethnic composition and wide range of social awareness and activity of the people living in diverse types of communities throughout the region. As such, the area offers a wide variety of intellectual and material resources for developmental work of a multi-cultural nature. Inasmuch as much of the traditional cultural heritage of ethnic minorities is unavailable in written English narratives, it is fortunate that people who have verbally passed this heritage on to their children in their native language are readily accessible as a resource for such a program. Furthermore, the community at large in the Bay Area has indicated its eagerness to participate in the program in various ways and poly-ethnic Laboratory staff members can easily be identified.

From the outset, the Program staff has been composed of members of different ethnic backgrounds, each sensitive to the needs and concerns of his own and other ethnic communities. Their formal educational experiences lie in anthropology, psychology, sociology, elementary and secondary teaching, and research. To identify the most urgent needs with the most reasonable expectation of directing Laboratory efforts toward their successful resolution, an Advisory Committee has been formed, composed of teachers, students, community workers, administrators, and professional personnel representing diverse ethnic groups residing in the region of the Laboratory. This Committee provides an invaluable resource for the program and serves as a liaison between the Laboratory and many ethnic communities.

Many educational institutions in the region such as the Institute of the Black World, National Indian Training and Research Center, the Navajo Community College, the Black Colleges and universities of the South, and local ethnic professional and civic organizations are readily available resources. The Center for Urban Education, the Southwest Educational Development Laboratory, the University of Wisconsin Research and Development Center for Cognitive Learning, the University of Pittsburgh Learning Research and Development Center, Loyola University (Chicago) Psychometrics Laboratory, and other educational research and development laboratories and centers which are directing their efforts in the areas of concern to this Program will be available as resources as required.

Personnel Resources

Staff. The Program Director's (Associate Laboratory Director of Division IV) academic training and experiences in education and the social sciences provide background for the proposed work. Experiences in international living, traveling, teaching, studying, and working across cultural lines in barrios, ghettos, reservations, and in Oriental communities; with public, private, and experimental schools, Community Action agencies, and teacher training institutions; with Federal, State, and local agencies; and with universities, State Departments of Education, and Boards of Education, provides a background which is sensitive to peoples of different cultures and which is necessary in the direction of this program.

The Program Director's responsibilities include contributing to the creative solution of education problems related to educational development and research; planning appropriate use of management information; organizing, scheduling, monitoring, and controlling the efforts of members of the program staff and program financial resources. He is expected to contribute to the growth and development of the Laboratory and to the realization of its mission.

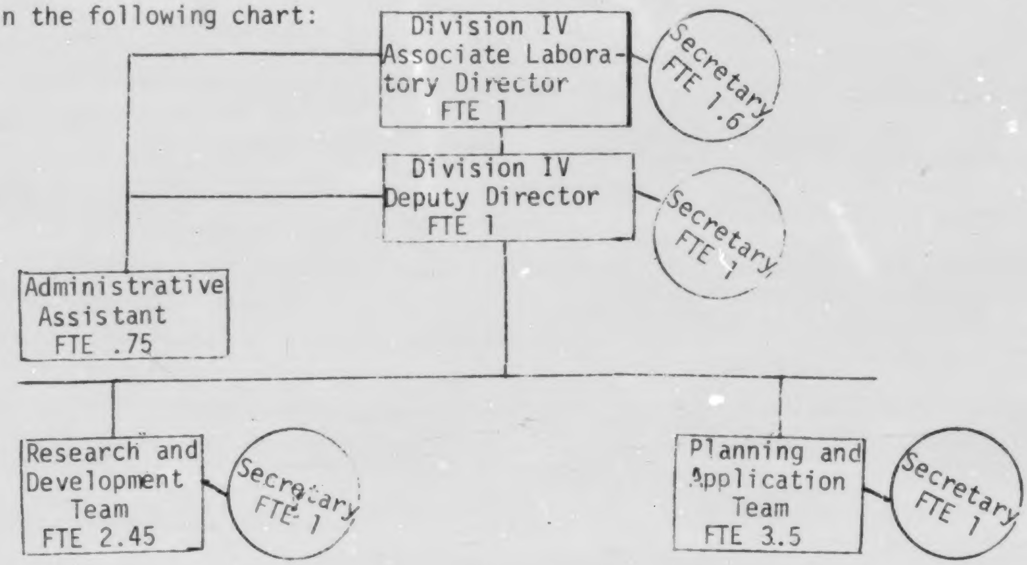
The Deputy Program Director, also Deputy Division Director, is assigned responsibility for the appropriate and effective use of personnel and program resources. She contributes to the solution of problems posed by tasks, and implements those strategies or approaches deemed most appropriate with general guidelines from the Program Director. In doing so, she develops, or causes to be developed, detailed plans and schedules; makes assignments of other employees working on tasks and sub-tasks; reviews the results of the efforts of the Division teams as they contribute to the accomplishment of the task; and takes corrective action as required.

Team leaders are expected to supervise and contribute to the accomplishment of program tasks that require the concerted effort of more than one person, for periods of time up to one year. They must work within the structure of a work plan (to which they may have contributed), make specific work assignments to others when and as required, provide necessary guidance and direction, and monitor the work as it proceeds. They note and evaluate discrepancies between work accomplished and the work required by plans, and make adjustments in the use of resources for which they have responsibility in order to correct such discrepancies. They collect, organize, and provide data or other information to assist in the preparation of administrative forms as well as technical and general reports.

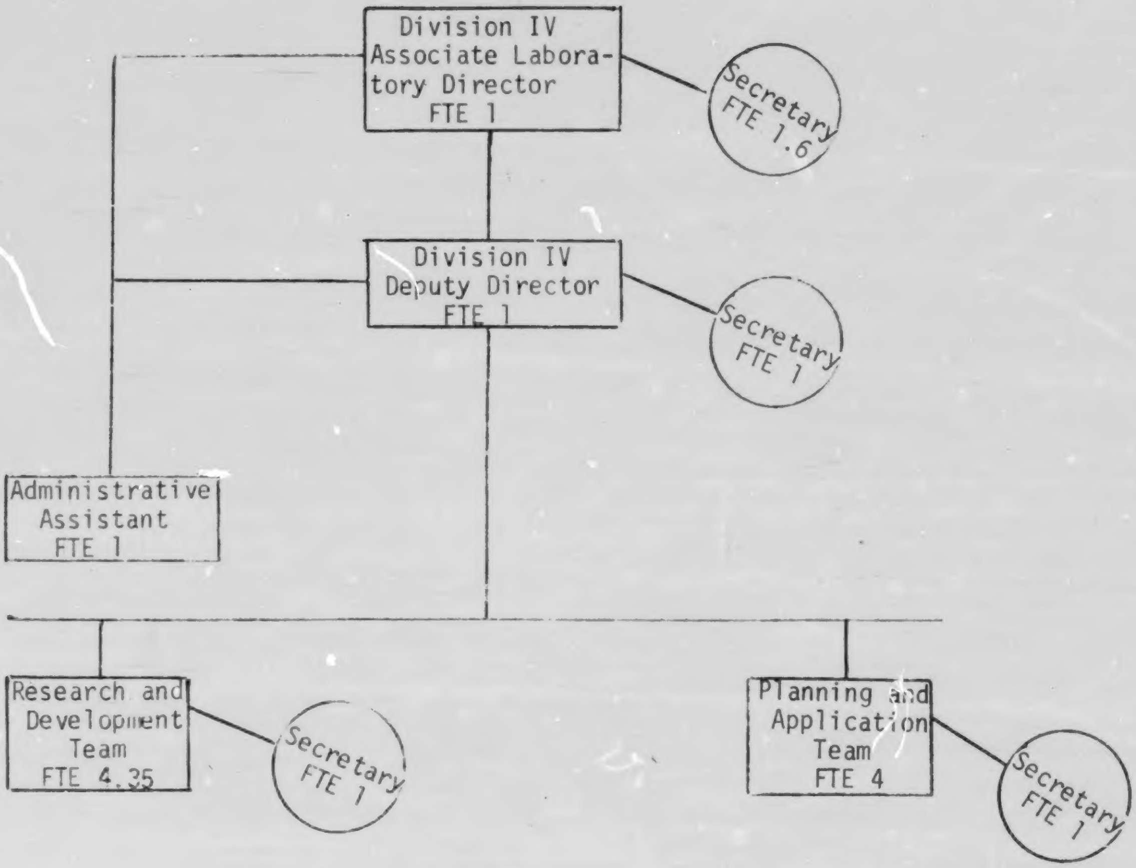
The team members are expected to make independent contributions to the technical and professional work of the Laboratory. They are required to work independently without assistance from a supervisor and to function as contributing members of a permanently constituted team. They are expected to provide the knowledge, skill, and judgment required to solve both identified and unforeseen minor problems. They assist in the development of plans for accomplishing tasks, work schedules, reports, and administrative forms. They provide guidance and assistance to other staff members in solving minor problems related to the details of the work to be accomplished and assume responsibility for efficient use of resources assigned to them.

In instances where special expertise which does not exist on the Division staff is required, we use consultants. Consultants are hired on a personal services contract for a specified purpose for a specified period of time. Typically, we rely on consultants who reside in the area and thereby eliminate exorbitant airfare costs. Appendix G contains personnel resumes for present permanent division staff in all of the positions described above, and also contains three resumes indicating the nature and quality of the consultants who assist us.

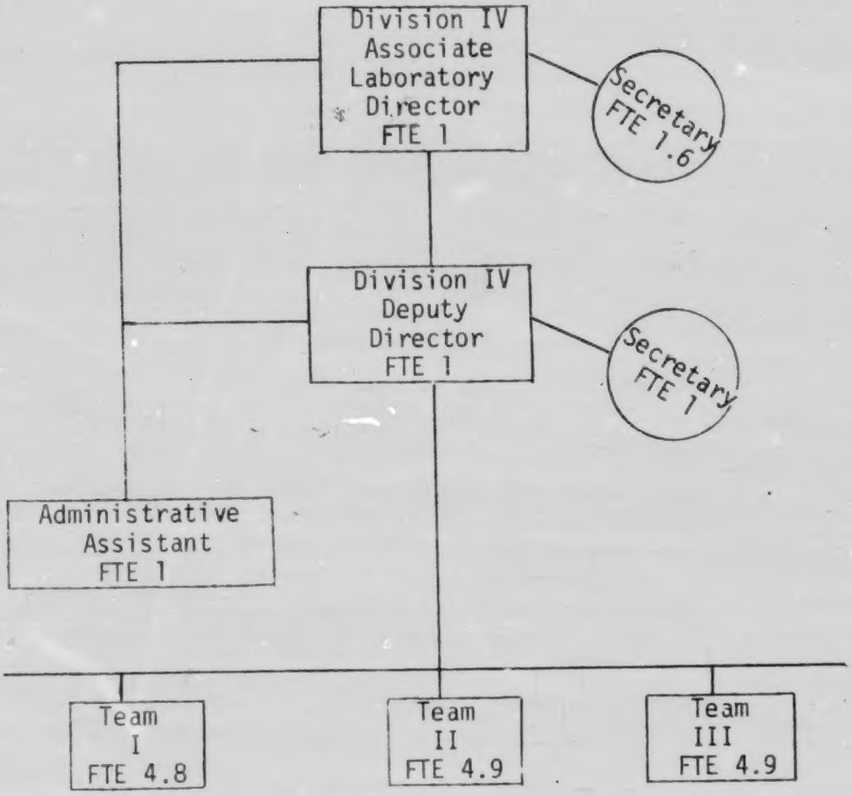
Organization. Presently the program is staffed by 15 people (FTE = 12.8). During this program year, we plan to hire two additional people and convert a position which is presently part-time to a full-time position. This will result in a staff of 17 people (FTE = 15.2). Our present organization is reflected in the following chart:


Division IV
Associate Laboratory Director
FTE 1
Secretary
FTE 1.6
Division IV
Deputy Director
FTE 1
Secretary
FTE 1
Administrative Assistant
FTE .75
Research and Development Team
FTE 2.45
Secretary
FTE 1
Planning and Application Team
FTE 3.5
Secretary
FTE 1

The change in staffing referred to above will render the following organizational chart:


Division IV
Associate Laboratory Director
FTE 1
Secretary
FTE 1.6
Division IV
Deputy Director
FTE 1
Secretary
FTE 1
Administrative Assistant
FTE 1
Research and Development Team
FTE 4.35
Secretary
FTE 1
Planning and Application Team
FTE 4
Secretary
FTE 1

If this program is funded, there will be a need to augment the staff by approximately five (bringing the FTE to 20.2) for the first program year. This will result in the following organizational chart.


Division IV Associate Laboratory Director FTE 1
Secretary FTE 1.6
Division IV Deputy Director FTE 1
Secretary FTE 1
Administrative Assistant FTE 1
Team I FTE 4.8
Team II FTE 4.9
Team III FTE 4.9

Each team will consist of a team leader, a secretary, and approximately three team members. Team I will be responsible for components 1, 2, and 6; Team II will be responsible for components 3 and 5; and Team III will be responsible for components 4, 7, and 8.

At the present time, the program staff is primarily a Black staff. This has occurred for at least two reasons: (1) the staff which was inherited by the present director was a Black staff, and (2) the staff which the present director hired during his early administration was predominantly Black. However, we intend during this program year to recruit and hire between two and three staff members to help us meet the needs of other populations for whom we have planned. Where possible, we intend to work with at least two ethnic populations simultaneously. For example, if we are first successful in recruiting Chicano staff, some of our early work will be done with both Chicano and Black populations. Under all circumstances, we will attempt to match the ethnicity of our staff with the work we will undertake. A time line for recruitment and initiation of work with each of the ethnic groups at issue appears below.

SCHEDULE FOR RECRUITMENT, TRAINING AND INITIATION OF WORK BY ETHNIC GROUPS

		Recruitment	Training	Initiations
Urban	Black	-	-	12/73
Rural	Chicano	12/73	3/74	6/74
Urban	Chinese	6/74	9/74	12/74
Rural	Navajo	12/74	3/74	6/75
Urban	Latino	6/75	9/75	12/75
Rural	White	-	-	-
Urban	Japanese	-	-	-

Again, we do not anticipate that personnel will become available according to this schedule. Accordingly, we will alter this schedule in instances where especially capable individuals are available to effect the interface between personnel and the board and the populations with which we would work as we have described above.

Financial Resources

In this section we essentially relate to the question: What resources will the program require to bring the program to successful completion? First, we present a budget by fiscal years. The proposed budget is presented in the form of a graph. Finally, the budget is presented in the suggested format specified in the U.S.O.E. guidelines dated January 5, 1972.

Table 1 will give the reader the overall estimated costs of the program by fiscal year. Figure 3 shows the shape of this estimation in graphic form. The U.S.O.E. suggested format indicated in Table 2 itemizes specific estimated resources required to support the program and shows how the requested funds related to the units of work at the program, component, and activity level.

Finally, to provide for the possibility that the programs objectives or tempo will have to be modified in relation to the availability of funds, Table 3 provides a schedule which presents estimated costs for three levels of basic contract funding in the order of preference at program and component levels.

TABLE 1

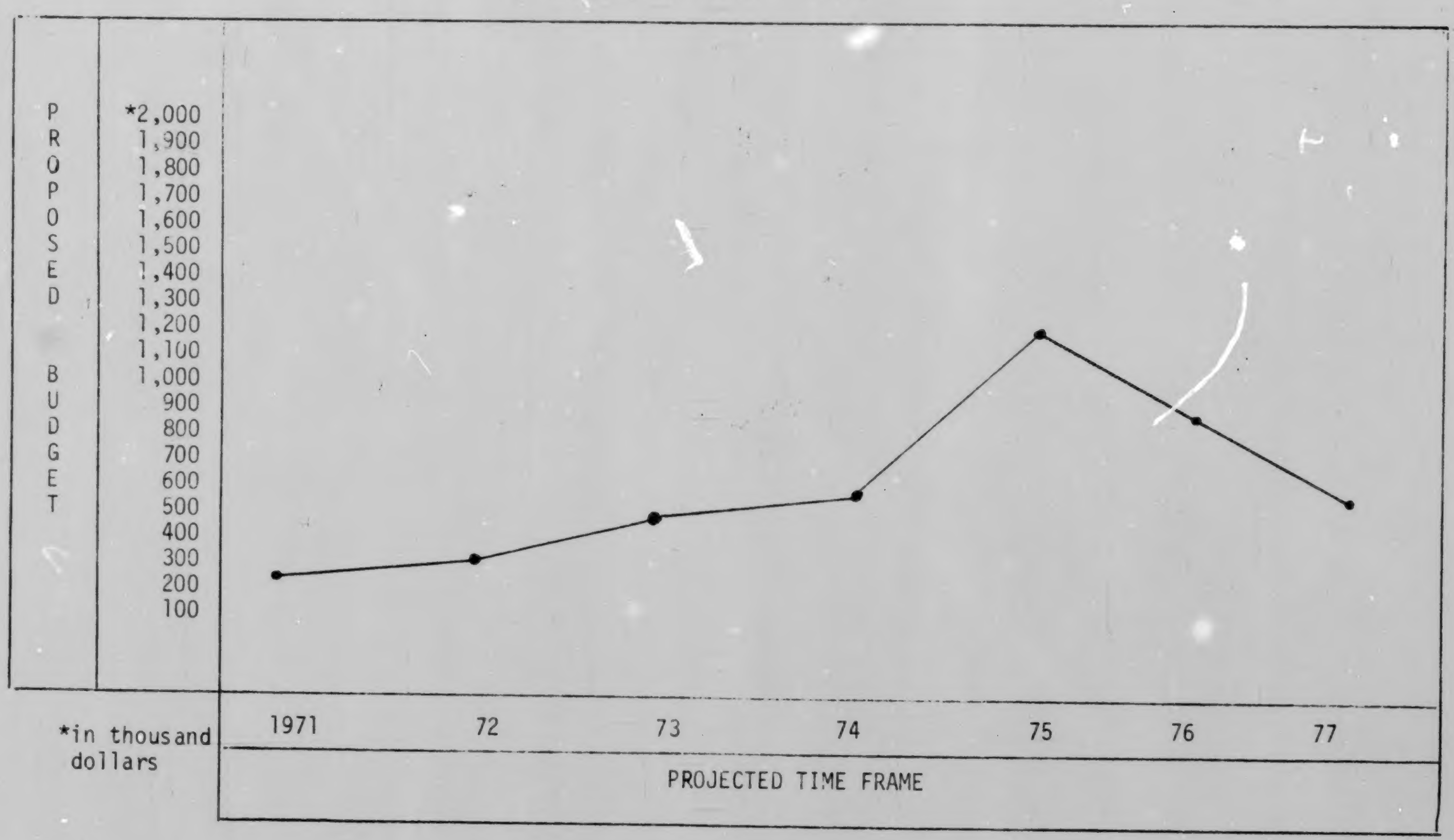
RENEWING HOME SCHOOL LINKAGE PROGRAM
BUDGET PROJECTIONS, 1973-1977*

	1973	1974	1975	1976	1977	Total
Total	487,102	614,438	1,101,000	885,962	545,162	3,633,664

*All figures include a 5% per fiscal year inflation factor.

FIGURE 3

PROPOSED BUDGET BY PROJECTED TIME FRAME
(including inflation factor) *



*in thousand dollars

Program code: R 3 6 F 7 0 0

Institution code: R 3 6 F

TABLE 2

Program title: Renewing Home-School Linkage

Date: April, 1972

Institution Name: FWLERD

Estimated cost of Program and Components, by fiscal year and source of funds*

Program, Component and source of funds	Total	FY '73	FY '74	FY '75	FY '76	FY '77
Program						
Total	4,157,664	527,102	729,438	1,191,000	1,024,962	685,162
DRDR	3,633,664	487,102	614,438	1,101,000	885,962	545,162
Direct Program and Program Support . .	2,590,511	367,002	453,414	812,308	619,201	338,586
Indirect	777,153	110,100	136,024	243,692	185,761	101,576
Other Funds, total	450,000	40,000	70,000	90,000	110,000	140,000
Other Federal	-0-	-0-	-0-	-0-	-0-	-0-
Non-Federal	450,000	40,000	70,000	90,000	110,000	140,000
Components						
Component I, Parental Inclusion	868,580	138,031	175,082	183,065	223,601	148,801
DRDR Program and Program Support . .	693,580	113,031	160,082	143,065	188,601	88,801
DRDR Other	-0-	-0-	-0-	-0-	-0-	-0-
Non-DRDR	175,000	25,000	15,000	40,000	35,000	60,000
Component II, Home-School Similarity	2,123,507	215,458	314,456	668,309	564,248	361,026
DRDR Program and Program Support . . .	1,888,507	200,468	299,456	618,309	489,248	281,026
DRDR Other	-0-	-0-	-0-	-0-	-0-	-0-
Non-DRDR	235,000	15,000	15,000	50,000	75,000	80,000
Component III, Teacher Training	527,085	119,207	120,000	202,878	55,000	30,000
DRDR Program and Program Support . . .	487,085	119,207	80,000	202,878	55,000	30,000
DRDR Other	-0-	-0-	-0-	-0-	-0-	-0-
Non-DRDR	40,000	-0-	40,000	-0-	-0-	-0-
Component IV, Program Planning and Direction	298,492	44,396	49,900	91,748	72,113	40,335
DRDR Program and Program Support . . .	298,492*	44,396*	49,900*	91,748	72,113	40,335
DRDR Other	-0-	-0-	-0-	-0-	-0-	-0-
Non-DRDR	-0-	-0-	-0-	-0-	-0-	-0-
Component V, Application and Utilization	266,000	10,000	25,000	45,000	81,000	105,000
DRDR Program and Program Support . . .	266,000	10,000	25,000	45,000	81,000	105,000
DRDR Other	-0-	-0-	-0-	-0-	-0-	-0-
Non-DRDR	-0-	-0-	-0-	-0-	-0-	-0-

*Other estimated funds, if received, will be utilized to decrease the estimated life of the program.

Table 3

Reviewing Home-School Linkage Program
Estimated Costs and Approximate Budgets for Three Possible Levels
of 1972 through 1977 Basic Contract Funding
(Costs Shown in Thousands of Dollars)

Components	Activities	Estimated Costs	Level 1	Level 2	Level 3
Parental Inclusion	Planned Change	242	242	242	242
	Alternative Routes	368	368	368	368
	CULAS	89	89	89	
Home-School Similarity	Home-School Dimensions	573	573	573	573
	Locus of Control	693	693	693	693
	Readability	312	312	312	312
	Communicative Competence	272	272	272	272
Teacher Training	S^2 C^2 E	311	311		
	Training Modules	176	176	146	91
Program Direction		299	299	250	240
Application and Utilization		266	266	189	113
Program Totals		3,601	3,601	3,134	5,665

*Figures do not include overhead.

FAR WEST LABORATORY FOR EDUCATIONAL RESEARCH AND DEVELOPMENT

Laboratory Goals

The Laboratory's overall mission has been characterized as "helping children have more and better opportunities to learn." Its major focus is on the development of educational products that will aid in the process of self-renewal of schools and teacher-training institutions. Each development division seeks to meet educational needs and solve problems within a given area of specification (e.g., teacher education or early childhood education). But various programs within these larger divisions work cooperatively and synergistically with other Laboratory programs outside their own divisions and with other developers in cooperating laboratories, R & D centers, private research organizations, school districts, and universities to achieve the highest quality for all Laboratory products and to avoid duplication of effort.

More specifically, this division, for example, works cooperatively with the Teacher Education Division by interacting with that staff, and providing input with respect to ethnic implications of future products. We work with Division III (Education Beginning at Age Three) in areas associated with parental involvement, early childhood education, and ethnic connotations of curricula and training materials.

Additionally, there is a common interest and cooperation among these three divisions in developing new and innovative ways to affect the training of teachers. Division I is dealing with this problem by developing school analysis faculty lessons, the units of which are competence clusters. Division III, in attacking the same problem, has chosen to pursue a flexible training system. We, of course, propose to meet this need by developing alternative routes to credentialing.

The formal structure to facilitate communication has two parts:

1. The Program Review Board which meets twice a month. The Board is composed of two members from each of the Product Development Divisions, the Laboratory Director, and the Associate Laboratory Director for Planning. One meeting each month is devoted to reporting on division progress at a rather detailed level. The second meeting is devoted to consideration of topics of common interest across programs.
2. The Director's Council, which meets once or twice a month as necessary to consider problems more generally related to the management of the Laboratory as an institution. This council is composed of the Laboratory Director and the eight Division Directors.

Although all the meetings of these two groups are concerned with matters of common interest to several programs, the progress reporting session of the Program Review Board is the one that most directly affects program work. As progress and problems in each of the programs are reported and discussed, areas of common interest, potential mutual support, or possible duplication are identified. As necessary, specific plans are made to pursue these in more detail with specific assignment of responsibilities.

Over and above cooperating with Laboratory product development divisions, this division plays a substantial role in advising and counseling Laboratory officials who are deeply involved with problems associated with our impending move to San Francisco.

With respect to specific extra-Laboratory cooperation, this division has working relationships with such agencies as The Oakland Model Cities Program, The Oakland Public Schools, The Berkeley Public Schools, The San Francisco Unified School District, and the Washau County Board of Education in Reno, Nevada.

Description of the Institution

Support. The Laboratory's Media Services program provides videotape and motion picture production, still photography, graphic arts, audio production, in-house duplication and collating, as well as access to the Government Printing Office in San Francisco. The Utilization Division actively carries out market analysis, demonstration, installation, monitoring, and public information functions for all product development programs.

The Laboratory's Manpower Division is responsible for personnel administration, recruitment, staff training, and the monitoring implementation of affirmative action employment policies (in 1972, 43% of the employees represented ethnic minority groups). More than 30 employees are enrolled in experimental courses in educational development, dissemination, and evaluation at local colleges. The Department of Labor sponsors eight on-the-job trainees from the Richmond (California) Concentrated Employment Program. Each Laboratory employee has a semi-annual work planning conference with his supervisor as well as an annual performance review.

Policy. Policy is established by a 26-member Board of Directors representing major educational institutions and agencies in northern California, Nevada, and Utah. Five board members represent community groups and other interests in the San Francisco Bay Area.

Plans for new and ongoing programs are reviewed by a 17-member Executive Panel, composed of members of the Board of Directors, members appointed by the board, and six Laboratory staff members (Director and five Associate Laboratory Directors). Operational decisions on matters that cut across the various development programs are made by a Laboratory Council composed of the Director and the eight Associate Laboratory Directors who head the separate divisions of the Laboratory. In addition, each Product Development Division has a National Advisory Committee which reviews the work and plans of that division semi-annually.

The Planning Division is responsible for preparing and revising the Laboratory's Long-Range Plan, the Annual Budget Justification for the Offic of Education, and the Quarterly Revisions of Program and Financial Plans. This division also maintains program and product files for the Laboratory.

The Administration Division is responsible for fiscal management, contracts and procurement, bidding and proposals, administrative services, and administration of media services. A management information system provides monthly fiscal data at program, component, and activity levels. The Audit Committee of the Board of Directors has appointed Haskins & Sells as the Laboratory's auditors.

The Laboratory was established as a public non-profit organization in 1966 under a Joint Powers Agreement. Signatories presently include:

The Regents of the University of California
The California State Board of Education
The Trustees of the California State Colleges
The Board of Education of the San Francisco Unified
  School District
The Regents of the University of Nevada
The Nevada State Board of Education
The Board of Regents of the University of Utah
The Utah State Board of Education

Through appointments to the Board of Directors, each of these agencies participates directly in establishing Laboratory policy, and in working with the Laboratory staff. In addition, the Laboratory has developed close working ties with a broad network of state and regional education agencies, local school districts, the educational publishing industry (one of the channels for delivery of completed products), professional organizations, community and parent groups, Head Start and Follow Through districts, and Model Cities agencies. In the dissemination arena, the Laboratory has allied itself with CEMREL, Inc., Northwest Regional Educational Laboratory, and the Wisconsin Research and Development Center in a concerted effort to speed installation and utilization of completed R & D products and processes.

Relation to Other Laboratory Programs

All of the Laboratory's programs are derived from the institutional mission of providing increased opportunities for children to learn. Under this broad statement, by far the greatest part of the work of the various programs is focused on increasing the capability of adults who work with children--parents, teachers, administrators--to provide increased opportunities for the children. Obviously, there are many adult roles that are essential to the development of children. Equally obvious is the fact that the nature of specific roles, and the skills needed in these roles will vary as a function of the characteristics of the children and the environments in which they live and learn. Finally, adult roles can be separated by major functions. They interact in various ways and in various settings.

For the most part, the distinctions among the Laboratory programs result from differences in the adult roles and learning environment to which the program efforts are directed. Thus, for example, three major program efforts have components directed to teacher training, two of these are funded by NCERD-DRDR, the third is funded by other agencies. But each program is directed to teachers who are or will be functioning in largely unique settings with children of different backgrounds and interests.

Even though the efforts of the various programs are appropriately directed to different aspects of similarly named adult roles, there are clearly overlapping interests and problems among the programs. The Laboratory has arranged a formal means for insuring that staff of different programs are cognizent of overlapping interest and work. This is, of course, in addition to various informal means of communication and interrelation of program work.

The formal structure to facilitate communication has two parts:

1. The Program Review Board which meets twice a month. The Board is composed of two members from each of the Product Development Divisions, the Laboratory Director, and the Associate Laboratory Director for Planning. One meeting each month is devoted to reporting on division progress at a rather detailed level. The second meeting is devoted to consideration of topics of common interest across programs.
2. The Director's Council, which meets once or twice a month as necessary to consider problems more generally related to the management of the Laboratory as an institution. This council is composed of the Laboratory Director and the eight Division Directors.

Although all the meetings of these two groups are concerned with matters of common interest to several programs, the progress reporting session of the Program Review Board is the one that most directly affects program work. As progress and problems in each of the programs are reported and discussed, areas of common interest, potential mutual support, or possible duplication are identified. As necessary, specific plans are made to pursue these in more detail with specific assignment of responsibilities.

Some selected examples of the interrelation of inter-program activities are:

1. The Program for Effective Teacher Education has developed and tested a product that will enable teachers to analyze educational materials for bias in the treatment of minority groups. The program concerned with improvement of home-school linkage has a

component which is focused on the need for information to bring schools in closer relationship to the home environment of students from minority communities. The staffs directly concerned with these activities exchange information and can profit from the experience of both.

2. The program concerned with the improvement of instructional management capabilities of school administrators has developed training materials that can easily be adapted to the need of administrators in pre-school programs. And these adaptations to the needs of early childhood division of materials that are still being tested in the Educational Management Program has already been initiated.

The examples of these cooperative and supportive inter-program activities could be continued. But the remainder of this section will be devoted to specific relationships developed for this program.

1. Teacher Training Modules, Competency clusters, and the Flexible training system.

   Our Proposed Teacher Training Modules Activity has been designed to be compatible with and complementary to the Flexible training system which is presently being developed by Division III of the Laboratory; and the school Analysis Faculty Lessons which are presently being developed by Division I of the Laboratory. This is possible only because of the mechanisms which we have developed for articulation between the programs and exchange of information and relevant documents.

2. Teacher Training (Division I) New Products Council

   From time to time we have been given the opportunity to meet with the New Products Council of Division I to have input into the thinking of the Division. These are viewed to be valuable opportunities because 1) it is an additional mechanism through which articulation can take place, 2) it provides members of the new products council with "outside" (of the Division) perspectives, 3) it provides a setting in which many of the ideas which are developing in our Division can be reality tested.

3. Education Beginning At Age Three Division III Parent Involvement. Several of our staff are an intregal part of the Division III Parent Involvement Effort. This relationship predates the assumption of responsibility of the Present Director for this Division.

4. Utilization of Education Beginning at Age Three (Division III) Sites.

   Division III is presently involved with programs for children between the ages of 3 and 9 in approximately 28 cities throughout the United States. These sites are available to this Division for purposes of action-Research and Development. One example of the utilization of these sites is our work on the matrix activity described in our Annual 1972 Budget Justification; for the Division of Research and Development Resources; United States Office of Education, September 1971 (pp. A-64 through A-74A).

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APPENDIX A

IMPLICATIONS OF PERCEIVED LOCUS OF CONTROL OF REINFORCEMENTS: RESEARCH FOR EDUCATIONAL PLANNING

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SUMMARY OF RESEARCH FINDINGS RELEVANT TO EDUCATIONAL PLANNING

There is adequate evidence indicating that (1) tasks perceived as dependent on chance are viewed differently with respect to expectancies, perceptual behavior, and extinction behavior than tasks perceived as being dependent on the performer's skill, (2) individuals have specific, situation-bound expectancies of control for some situations, but that they also have generalized expectancies for internal versus external control of reinforcements, (3) individuals vary in the extent to which they endorse internal versus external control beliefs.

These findings indicate that individuals who have internal control beliefs tend to learn more about their life situations, make more active attempts to control or affect what happens to them, are more prone to perceive the availability of reinforcements in situations, and are more readily able to influence others.

In general, it has been found that perceived locus of control beliefs can be used to predict achievement striving in academic situations, academic achievement, scores on IQ tests, tendency to conform, and tendency to exhibit risk-taking behavior. It has also been determined that the correlations between motivation to achieve and internal beliefs show a low negative correlation, indicating that perceived locus of control measures are not gauging what achievement measures are. In other words, the desire to affect the environment is not necessarily related to the feelings or belief that one can affect one's environment.

In reviewing literature related to group differences, studies were cited which reveal sex differences (among whites), social class differences and cultural differences in control beliefs. Social class differences were found to be more predictive of control beliefs than ethnicity.

In considering the source of locus of control beliefs, studies finding a relationship between children's perceived control and variation in parent-child relationships were considered. In general, the findings indicated supportive, flexible attitudes on the part of the parents tend to foster the development of internality for boys, while independence training seemed to be the most effective variable in terms of internality development for girls. Along another dimension, a study by Shirley Jessor indicated that the parents' control beliefs to some extent can be used to predict their children's control beliefs.

A study with important implications concerning the antecedents of locus of control is that of Bartel, _et al_. (1970). This study revealed no significant differences between control beliefs held by children of middle-class versus lower-class socioeconomic backgrounds when they enter school, thus, indicating that, for their sample, there were no significant differences in the results of factors that affect control-belief attitudes in the home environments of children from these two social classes. Bartel _et al_. found, however, that by the sixth grade, lower-class children were significantly more external than middle-class children. The causal factors appeared to be differential educational environments and programs.

In looking at studies related to modifying locus of control beliefs, we reviewed two which indicated that a specially designed curriculum, and counseling about behavior-effect contingencies have been found to be somewhat effective. Two other studies showed that more internal behavior could be induced from external-control oriented individuals in specific situations by either cuing them about the reinforcements available or by facilitating the linking of new goals to whatever prior successes the external individual may have had. It was hypothesized that individuals induced to change their behaivor over a series of such situations might eventually show changes in their generalized expectancies. These findings have important implications for educational planners, researchers, and developers.

SOME IMPLICATIONS OF PERCEIVED LOCUS OF CONTROL OF REINFORCEMENTS:

Research for Educational Planning

Variables focusing on feelings and beliefs about self in relation to behavior are currently receiving a great deal of attention. In both research designs and theoretical discussions, these variables are often subsummed under terms such as "self-image" and "self-perception." In our opinion, these are umbrella terms and are far too inclusive to serve as sound bases for making educational decisions. We have, therefore, chosen to limit ourselves to what we perceive to be one dimension of this domain - perceived locus of control: the extent to which an individual feels that he, versus external forces, controls what happens to him.

A number of concepts have been used in discussions of the control relationship between man and his social and physical environment (see Lefcourt 1966a, 1966b, and Rotter 1966). These concepts focus, variously on the extent to which man (1) is motivated to, (2) feels that he is capable of, and (3) is able to determine what reinforcements (i.e. rewards or punishments) he will obtain from events in his life space.

Alder (Ansbacher and Ansbacher, 1956) for example, theorized that human nature is such that man strives to overcome helpessness by developing mastery over elements in his environment. Similarly, R.W. White (1959) and Angyal (1941) give attention to what they consider to be a major motivation underlying human behavior - the need to achieve mastery over and competence in dealing with the environment. In other words, these researchers argued that man has feelings ranging along a continuum from helplessness to mastery where the latter is strongly preferred and sought after.

The above theorists speak of man in general rather than drawing attention to individual differences. The work of McClelland, Atkinson, Clark, and Lowell (1953); and Atkinson (1958) with adults; and Crandall (1963) with children, focuses upon a felt need to excel in situations where some standard of excellence exists. This "need for achievement" varies with individuals.

Aside from motivations to achieve mastery, competence, or excellence, there are differing beliefs about the possibility of controlling events.[1] A frequently encountered approach among individuals is a reliance upon luck, fate or chance to supply solutions for problems. The world views of various cultures are known to differ in the degree to which control of events by man is felt to be appropriate. Veblen (1899), for example, commented upon this variation among cultures in belief in and reliance upon fate. A recent comparative description of predominant control beliefs among Americans and Chinese summarized them, respectively, as "Life experiences appear to be largely a consequence of one's actions," and "Life situations may be viewed as being largely determined by circumstances outside one's control." (Tin-Yee Hsieh, et al., 1969, p. 122).

Beliefs about the possibilities of human control are valued differently by members of different cultures. Veblen revealed his biases by characterizing societies which emphasize that man's destiny is determined by non-human forces as "barbaric." Some nations of American Indians, however, would feel that Veblen was advocating the violation of natural law and the disruption of man's harmony with nature.

Another concept - alienation, and in particular the dimension of alienation referred to as powerlessness, has been used by Marx, Weber, and Durkheim and more recently Merton (1949) and Seeman (1959) to discuss an individual's feeling that he lacks sufficient power to cause ends and that he is at the mercy of forces too strong or too vague to control.[2]

Situations generating feelings of alienation appear to be ones in which usual means of personal efficacy are rendered unworkable or the barriers to procurement of valued ends appear to be insurmountable. These conditions may exist, for example, for certain subgroups in social systems where the fields of alternatives are constricted and there is little chance for a role other than that of dependence on a possible capricious and absolute authority. For many prisoners in Nazi concentration camps such conditions prevailed in the extreme. Alienation, then, refers to perceptions of one's power relative to others who are affecting one's life conditions rather than to learned cultural beliefs about the possibility of human control over the environment.

Along another dimension, the concept of mastery as described by Strodbeck (1958), focuses on the feeling of having control over or being in command of a particular set or sets of situations. A feeling of mastery may arise from successful experiences that one has and/or the reputation that one's group has relative to other groups either past or present. Both alienation and mastery carry implications as to whether the emotional sensations associated with them, respectively, are pleasant or unpleasant. Feelings of alienation, for the most part, are unpleasant while feelings of mastery are pleasant.

A concept which has less implications about emotional feelings (pleasant versus unpleasant) and is not restricted to only those perceptions obtaining from a particular source is that of locus of control or perceived control. This concept pertains to an individual's generalized expectancies for internal versus external control of reinforcements or, in other words, the extent to which an individual feels that the reinforcements he derives from events in his life space are contingent upon his behavior. An individual who feels that there is a strong relationship between what he does and what happens to him is said to have internal control beliefs.

This construct has been subjected to extensive empirical investigation primarily in the context of Rotter's (1954) social learning theory. Briefly, learning theory (as opposed to social learning theory) postulates that the reception of a reinforcement strengthens the expectancy of the reinforcement when a particular subsequent behavior or event occurs while the failure of the subsequent reinforcement to occur reduces the expectancy. Social learning theory takes an additional point into account: as an infant develops, he comes to differentiate between events which are causally related to preceeding events and those which are not. Thus Rotter hypothesized that an expectancy that a particular reinforcement will follow a particular behavior will not be as strengthened (by the occurrence of the reinforcement) when the reinforcement is not seen as related to the subject's own behavior, as when the behavior is seen as contingent. For example, while a dog might tend to subsequently lift his leg more often if someone happened to feed him just after he had lifted his leg, a human would probably not do the same unless he somehow thought that his lifting his leg had brought about his being fed. In other words, Rotter feels that locus of control is an important parameter in human learning.

Because theory related to perceived locus of control has been developed in the context of social learning theory, the focus to date has been primarily on the effects of differing degrees of internality or externality on learning behavior and the manifestation of instrumental behavior rather than on the underlying sources of an external versus an internal orientation. When we look at research with implications as to the sources of locus of control beliefs we will find evidence which indicates that one's locus of control beliefs are related to one's cultural matrix as well as to the extent to which one feels alienated from one's society. With regard to the other terms mentioned (mastery, helplessness, competence, other-directedness, self-alienation, and need achievement), the implications of the perceived locus of control construct for motivation, the realism of a person's feelings of control, or the extent to which he accepts his own feelings and desires as valid, have not been thoroughly developed.

We shall now turn to a review of the literature on perceived locus of control.

A REVIEW OF THE LITERATURE ON PERCEIVED LOCUS OF CONTROL OF REINFORCEMENTS

Two major approaches to perceived locus of control have been utilized in research. One stresses expectancies for internal versus external - control over reinforcements in specific situations. Usually, these expectancies are induced by instructions in experimentally designed tasks. Of interest is the differential behavior that subjects display depending on the extent to which they perceive the outcome on the task as being dependent on their own performance versus external factors. The second approach is based on the existence of individual differences in generalized expectancies for internal versus external control across many situations. Numerous locus of control scales have been developed (Phares ~~(~~1957), James (1957), Rotter (1966), Adams-Webber (1963), Cardi (1962), Battle and Rotter (1963), (see Appendix A)) to measure an individual's typical control orientation.

Findings related to specific situation - bound expectancies can be assumed to give some indications of the usual approach that individuals with internal control beliefs versus external control beliefs utilize across various situations. In some cases, studies based on life situations as opposed to controlled laboratory settings have been made which support the generalization of the laboratory findings.

In the following review, studies of both laboratory settings and life situations are interspersed according to the general topic with which they deal. After reviewing research which is relevant to the behavioral implications of the perceived locus of control construct we will consider research studies concerning the relationship between locus of control beliefs and academic performance, conformity behavior, risk-taking behavior, and need achievement. Next, data relevant to antecedents of locus of control and techniques for modified control beliefs are reviewed. Finally, questions raised by the research in relation to educational planning will be discussed and some directions for further research outlined.

BEHAVIORAL IMPLICATIONS OF LOCUS OF CONTROL OF REINFORCEMENTS BELIEFS

Concentrated study of the locus of control variable began in the late 1950's with investigations by James and Rotter (1958), and Rotter, Liverant, and Crowne, (1961), of the different kinds of learning behavior produced by different kinds of learning paradigms or situations (Rotter 1966). The hypothesis was that a learning situation such as that in which the subject believes that the experimenter or some other external party is arbitrarily determining whether or not a reward is given, regardless of the behavior of the subject, will produce a different kind of learning than one in which the subject believes his own behavior is determining whether or not he receives a positive reinforcement. (Rotter 1966, p. 5).

The first of these studies was executed by Phares (1957). Phares selected a task for his subjects to perform which was ambiguous as to whether success on the task was due to the subject's skill or to chance factors. He instructed half the subjects that the task was so difficult that they could succeed only by chance, while, he informed the other half that the task was difficult and required a great amount of skill. As the correct answer was also difficult for the subjects to determine, Phares was able to structure the sequence of rewards that the subjects received. In other words, every subject was told that his first, second, fifth and eighth response was correct, say, and that his third, fourth, etc., response was incorrect. The dependent variables had to do with the number of chips the subject bet that he would be correct on the succeeding trial. Phares looked at the increments and decrements in expectancies (amounts bet) following trials. He found that subjects who had been given skill instructions tended to raise their bets after success and lower their bets after failure. Subjects under chance instructions, on the other hand, tended to change their bets less frequently and they had a greater tendency to make unusual shifts: up after failure, down after success, in their bets.

In a similarly structured experiment, James (1957) studied the generalization of expectancies from one trial to another and the "spontaneous recovery of expectancies from one set of trials to another, the hypothesis being that subjects with chance instructions will tend to make fewer generalizations of expectancies and not be as likely to experience spontaneous recovery. The results confirmed the hypothesis concerning generalization of expectancies while, for spontaneous recovery of expectancies the results in the predicted direction, but not significant.

In the following year, James and Rotter (1958) designed an experiment similar to Phares, except that they had four groups instead of two. Two were given chance instructions, and the other two skill instructions. One chance group and one skill group received partial reinforcement (they were told half the time that their responses were correct) while the two remaining groups received 100% reinforcement (they were told they were correct on every trial). After 10 training trials, all four groups were told that their answers were incorrect on each successive trial. The dependent variables in this study were the verbalized expectancies from trial to trial and how many trials it took the subject to lower his expectancy to 0 or 1 for three successive trials after the extinction trials began. James and Rotter found that subjects under skill instructions, extinguished faster if they had been given partial (50%) reinforcement than if they had been given 100% reinforcement. For subjects under skill instructions, in other words, the greater the previous reinforcement, the longer the subjects took to realize that they were no longer able to perform the task successfully. On the other hand, they found that under chance instruction, subjects who were told they were right half the time took longer to extinguish than those who had been told they were correct 100% of the time. The greater the previous reinforcement, the less time it took chance subjects to realize that their "lucky streaks" were no longer operating. James and Rotter also found that under partial reinforcement, chance subjects took longer to extinguish than skill subjects. But, that under 100% reinforcement, chance subjects took less time to extinguish than skill subjects.

Rotter, Liverant, and Crowne (1961) performed a similar experiment. However, they did not give instructions that differentiated between skill versus chance tasks. Rather, they used two different tasks: one, which based on cultural experience, it was felt, would be perceived as a skill task, and the other one, which it was felt, would be interpreted as a chance task. Both tasks were designed, however, such that the researchers, unbeknownst to the subject, could manipulate whether the subject succeeded or not. The findings confirmed the previous findings of both the Phares, and the James and Rotter studies. The 1961 experiment utilized 8 groups, four with the chance task and four with the skill task. One skill group and one chance group received 25% reinforcement; one skill group and one chance group received 50% reinforcement; one skill group and one chance group received 75% reinforcement; and the remaining two groups, one skill and one chance, received 100% reinforcement. For the 25% and 75% reinforcement groups, the differences between skill and chance tasks were less marked than for the 50% and 100% reinforcement groups.

This finding was interpreted as indicating that the chance groups with 25% and 75% reinforcement were being rewarded or reinforced more often or less often than could be accounted for by chance alone so that the task appeared to the subjects to be more similar to a skill task.

In the following year, Holden and Rotter (1962) designed a very similar experiment, except, that they gave the subjects money with which to bet rather than asking them for verbalized expectancies. They had three groups: one with skill instructions, one with chance instructions and one with ambiguous instructions. All three groups received partial reinforcement for a number of training trials and then received 100% negative reinforcement. The results indicated that the chance and ambiguous subjects had significantly more trials to extinction than the skill subjects. These findings were compatible with previous findings.

Two studies, Bennion's (1961) and Blackman's (1962) provide data that indicates features of experimental situations which cue subjects as to whether the tasks are skill or chance. Bennion used the same tasks as were used in the Rotter, Liverant, and Crowne study. He examined a 50% reinforcement sequence that was generally positive but in which reported scores differed in variability between two groups. Bennion hypothesized that the subjects receiving less variable scores would show more responsiveness to success and failure in their expectancies of success than subjects receiving more variable scores just as subjects in a skill situation have been shown to be more responsive to success and failure than subjects in a chance situation. Bennion found support for his hypothesis.

Blackman set up an experiment in which 8 groups were exposed to different sequences of flashing red and green lights. For the groups, the sequences varied in length and in easy versus complicated patterning. Extinction began when the red light ceased to go on. Blackman hypothesized that the length of the sequences would affect the number of red responses given in extinction and the expectancies associated with them. The longer sequence subjects extinguished more quickly as did the easy pattern subjects. Apparently the more complicated pattern was not recognized. The results were interpreted as indicating that longer sequences and recognizable patterns are perceived by the subject as not being random and therefore predictable, so that the extinction series indicated a change in the situation. If, on the other hand, the series is perceived as random, the subject's expectancy that the red light will appear will continue much longer.

Findings from the work of Rotter, Liverant, and Crowne (1961), Bennion (1961), and Blackman (1962) indicate certain features of a situation that are perceived as cues that the task is not a chance one, namely, when (1) the percentage of reinforcement significantly deviates from a 50-50 percentage in a correct-incorrect situation, (2) the sequence of reinforcements appears to have a pattern, (3) long sequences of two alternative events occur, and (4) variability of performance is small in a task allowing for scoring along a continuum.

Rotter's social learning theory indicates that an individual's expectancy formulation for a reinforcement will differ depending on whether or not the individual perceives that his behavior is contingent upon the reinforcement. If the individual feels that there was a casual relationship between his behavior and the particular reinforcement he received from a situation, he subsequently is more likely to repeat or avoid the behavior in a similar situation, depending on whether the reinforcement was negative or positive.

His tendency to repeat or avoid the behavior, however, will not be increased if he believes that his behavior did not affect which reinforcement he received.

The locus of control construct has further implications for learning in that an individual who assumes that his behavior has no relation to the outcome might be expected to acquire less instrumental information about the situation than if he assumes that his behavior makes some difference. Phares (1962) designed an experiment in which two groups of subjects were exposed to nonsense syllables. Some of these syllables were accompanied by shock. One of the groups was instructed that they could escape the shock if they learned the shock stimuli (particular syllables) and pushed the appropriate button when the shock stimuli appeared. The chance group was informed that pushing the buttons might enable them to avoid shock by chance. The number and sequence of reinforcements were the same (the skill subjects performed the task first). Recognition level of the syllables was determined before and after training. Findings indicated that over the training trials, the skill group raised their recognition levels for the syllables more than did the chance group. Phares concluded that individuals who feel they have some effect on the situation are more likely to manifest perceptual behavior that will increase their chances of coping with a potentially threatening situation than they are if they feel non-controllable forces are determining the outcome.

Seeman (1963) designed an experiment which indicates that a life situation may be classified differently in terms of internal versus external control by different individuals and that perceptual behavior with respect to the situation can to some extent be predicted by these differing classifications. An individual's score on a locus of control scale (see Appendix A for a discussion of such scales) indicates to some extent the manner in which life situations are perceived by that individual. Seeman collected scores on a locus of control scale (in this case, an alienation scale) from prison inmates and then tested them for retention of information provided to them which related to securing a parole. Those committed to habilitation values (as measured by their merit records) who were low in externality (i.e., tended to feel that their behavior was causally related to what happened to them) learned the parole-related material significantly better than inmates high in externality.

A study with similar implications was performed by Seeman and Evans (1962). Hospitalized tuberculosis patients were asked to respond to a perceived control measure and were categorized according to objective knowledge they had acquired about their own health conditions. For a group of half internal and half external controls, matched on socioeconomic and hospital experience variables, it was found that patients characterized as external tended to have less knowledge about their own health.

Lefcourt (1967) performed a study which also indicates that perceived locus of control is related to the degree of perceptual behavior manifested by individuals in certain situations. If an individual does not become involved with trying to affect a situation (as individuals with external control beliefs are less likely to do) he is less likely to be aware of the cues which could inform him of the possibilities of affecting the situation. Lefcourt's study supported the hypothesis that external control individuals fail to differentiate situations with regard to reinforcement availability. (see page 38 for a more complete description)

In addition to the expectation that perceived locus of control is related to the amount of information one acquires about one's life situations, it is also logical to expect that there is a relationship between control beliefs and the amount of instrumental behavior manifested with respect to affecting one's situations. Individuals who believe they can affect their environments are likely to be the ones who try to affect their environments. In a study of students enrolled in a Black college, Gore and Rotter (1963) found that scores on a perceived locus of control scale predicted the type and degree of commitment behavior manifested to effect social change. Students who were more internal manifested a greater degree of commitment behavior than those who were less internal. In 1965, Strickland replicated the study with nearly identical results.

Rotter (1966) makes reference to an unpublished manuscript written by Seeman in 1964 concerning a study with similar implications about control beliefs and attempts to affect the environment. Seeman studied workers in Sweden using a translated version of the I-E scale. He looked at union members versus non-union individuals, activity within the union, and general knowledge of political affairs. The results clearly indicated that workers scoring high in internality tended to be union members, more active in the unions, and more knowledgeable about political affairs, in general, than workers low in internality. These correlations were low but significant and held up when variables such as education, age, and income were controlled for.

Rotter (1966 p. 21) postulates that a feeling of being able to control one's environment is also a feeling that one can control one's self (p. 21). He cites a study by Straits and Sechrest (1963) which found that nonsmokers were significantly more internal than smokers. Two years later, James, Woodruff, and Werner (1965), replicated that finding with the additional results that, following the Surgeon General's report, among male smokers, those who ceased smoking and did not return to smoking in a specified period of time were more internal than those who believed the report but did not quit smoking. The difference was not significant for females who the authors feel were motivated by other variables.

Phares (1965) reported results from a study which indicate that manifested instrumental behavior may be more or less effective depending on whether or not the individual is internal or external. In this study, internal versus external control oriented "experimentors" (as measured by a perceived locus of control scale) were used in an attempt to change female subjects expressed attitudes on various issues. Prior to the experiment, the subjects filled out an attitude questionnaire. The experimentors read from standard instructions in their attempt to influence the subjects. As hypothesized, internally oriented experimentors were able to induce significantly greater changes in expressed attitudes than were externally controlled experimentors. Control group subjects who merely filled out the questionnaire the second time without any attempted influence showed changes equal to those subjects exposed to externally controlled experimentors.

Research indicates that some specific situations are perceived as being internally or externally controlled on the basis of cultural beliefs or verbal instructions. Work with perceived locus of control measures also indicates that individuals vary in terms of their generalized expectancies for internal versus external control of reinforcements. A reasonable supposition is that internals prefer and perform better in situations where the actual environmental locus of control and the person's preference for, or appraisal of the locus of control are congruent. An internal person's control expectations are confirmed when he possesses control, while the expectations of an external control individual are confirmed when control is external, or determined by chance. At least two studies, Crowell, Rosenthal, Shakow, and Zahn (1961) and Rotter and Mulry (1965) support this contention. Watson and Baumal (1967) present results from a study in which they hypothesized that anxiety occurs when an internal must perform in an external situation and vice versa and that this anxiety interferes with task performance confidence. This hypothesis was supported.

In summary, the variable perceived locus of control has implications for (1) expectancy generalization, (2) perceptual behavior, (3) manifestation of instrumental behavior, and (4) situation preference. The research findings described above support the construct validity of the locus of control concept.

LOCUS OF CONTROL BELIEFS, ACHIEVEMENT STRIVING, SCHOOL PERFORMANCE, AND IQ SCORES

It would seem a logical extension of the notion of perceived control that those individuals falling toward the internal end of the continuum would be more likely to strive in achievement situations than individuals who feel that what happens to them has little to do with their behavior, (Rotter, 1966). Since those who strive would be more likely to do well in academic achievement situations, we might expect to find a relationship between locus of control and academic performance.

Rotter (1966, p. 22) makes two arguments which if sound would indicate that the relationship between control belief scores and achievement striving and therefore between control beliefs and actual performance might not be as high as one might expect. Merton (1946) in discussing the functions of a belief in luck (external control) pointed out that some individuals are susceptible to relying on luck, as a defense against failure. Rotter argued that individuals who were originally highly competitive might gradually find it more comfortable to voice an external viewpoint, though many such people would continue to maintain striving behavior in clearly structured competitive situations. Rotter's second point involved the question of whether or not school situations are ones in which students learn specific, situation - bound expectancies of control. He felt that this is the case to some extent, and that therefore as the children learn these specific, situation-bound expectancies, the relationship between the children's generalized expectancies and their behavior in specific school situations will tend to be weakened.

Correlations between control beliefs and striving in academic achievement situations have been found. Franklin (1963) using a large national sample of high school students found that 15 out of 17 hypothesized relationships between locus of control and "reported" evidences of achievement striving were supported. Individuals who scored as internals on a perceived control measure tended to report more achievement striving behavior (e.g., amount of time spent doing homework, intention to go to college) than individuals who scored as externals.

Rotter (1966) referenced a study conducted by Efran (1963) which suggests indirectly a relationship between locus of control and concern with achievement excellence. The reported result is that high school students' tendencies to "forget" failures versus successes is significantly related to their internality scores. From the results of this study, Rotter hypothesized that for internals there is a functional value in a defensive tendency towards externality. Externals have less need to "forget" their failures than internal control oriented individuals. This may be because the external has already accepted the notion that what happens to him is determined to a great extent by external factors.

Another study, Crandall _et_ _al_. (1962) revealed that control beliefs for boys but not for girls were important predictors of (1) time spent in intellectual free-play pursuits ($r = .70$, $p < .05$), and (2) intensity of striving in these pursuits ($r = .66$, $p < .05$).

Actual performance is also found to relate positively to internality of locus of control beliefs. Crandall _et_ _al_. (1965) found that scores on the Crandall _et_ _al_. Intellectual Achievement Responsibility Questionnaire (IAR) and report card grades for children in grades 3 - 6, 8, 10, and 12, correlated positively: that the more _internal_ answers the child gave, the more likely he was to have high grades. The relationships for the

the 6th, 8th, 10th and 12th grades were weaker than the correlation for the lower grades but still significant. Crandall _et al_. (1962) found for boys, though not for girls, that control beliefs were good predictors of (1) reading achievement test scores ($r = .51, p < .05$) and (2) arithmetic achievement test scores ($r = .38, p < .10$). Cellura[3] found a positive relationship between degree of internality and performance on the SRA academic achievement test for boys of lower socioeconomic status.

The Coleman _et al_. (1966) data indicates that minority group students, with the exception of Orientals, had far less conviction than whites that they could affect their own environments and futures. For those minority students who did have some feeling of control, however, their achievement was higher than that of white students lacking internal control beliefs (Coleman _et al_. p. 22).

Bartel _et al_.(1970) found positive correlations between locus of control and two achievement measures: (1) first grade reading readiness raw scores from the children's cumulative records and (2) current standardized achievement test scores. For both middle and lower-class children, the more internal the child, the more likely that his achievement scores would be high, though the relationship was stronger for middle-class children. That reading readiness scores can be used to predict locus of control for two to six years later indicates a fairly stable relationship.

The results seem fairly clear as to a positive relationship between degree of internality and school achievement. Entwistle and Greenberger (1970) as well as Reimanis (1970), however, bring up an issue which complicates the relationship. Many studies have revealed strong positive relations between IQ and locus of control (Bialer, 1961; Crandal _et al_.1962; Coleman _et al_., 1966; Bartel _et al_., 1970; and Reimanis, 1970). Exceptions to this general finding were for white girls (Entwistle and Greenberger: white girls with high "IQ scores" tended to be more external than white girls with lower "IQ scores") and for lower socio-economic group Black children with high "IQ scores" (Battle and Rotter, 1963: lower socio-economic group Blacks with high "IQ scores" showed lower externality than did middle-class whites with "average IQ scores"). Since "IQ scores" have been found to be strongly correlated with both achievement scores and control belief scores, Entwistle and Greenberger point out that the appearance of a relationship between control beliefs and school achievement scores when IQ is not controlled is not surprising. In their investigation, the effects of IQ were controlled for. No relationship between school grades and control beliefs was found. The authors felt that had previous researchers also controlled for IQ, they would have gotten equivalent results. Reimanis (1970), who found a correlation between IAR scores and achievement, also pointed out the possibility that much of the relationship between internal control and achievement might be due to the positive relationship between intelligence and internal control(page 20).

In considering this complication, we must point out that statistical tests and measures reveal associations between variables, but do not speak to the question of causality. Owing to the unanswered question currently being raised about the validity of IQ measures, it would appear to be premature to assume that the relationship found between control beliefs and school achievement is merely a result of the correlation between "intelligence" (as measured by IQ scores) and control beliefs; and IQ scores and school achievement, where "intelligence" is assumed to be the causal factor. Also, the Cellura study (mentioned above) revealed a direct relationship between scores on an academic achievement test and control beliefs for boys of lower socio-economic status, with IQ controlled for.

The correlations referred to above concerning "IQ" and control beliefs were found for samples of children and youth. For adults, Strickland (1962), Ladwig (1963), and Cardi (1962), report either non-existent or low correlations. This may have been due, however, to a small range of "IQ scores."

Locus of Control Beliefs, Conformity, and Risk-Taking

Studies indicate that control beliefs can be used to predict amount of conforming behavior and approaches to risk - taking.

In a study investigating characteristics of conformers (Odell, 1959), a significant relationship was evidenced between scores on the Internal - External Control Scale (I-E) and Barron's (1953) Independence of Judgment Scale. Subjects with high scores for externality on the I-E scale tended to show greater tendencies to conform. A study by Crowne and Liverant (1963) revealed results which were compatible with Odell's findings. Subjects who were externally oriented were found to exhibit significantly more conforming behavior than internally oriented subjects when both were exposed to Asch - type conformity situations. In addition, with expectancies for outcomes expressed in terms of amount wagered, external subjects tended to be less confident than internal subjects. Also, differences in relative amounts bet on "conforming" versus "independent" trials were found between internal and external subjects. Internals tended to wager equivalent amounts on both types of trials whereas externals bet significantly less on independent trials.

With respect to risk - taking behavior, Liverant and Scodel (1960) hypothesized that internal subjects in a chance situation, where the objective probabilities of the outcomes were provided, would tend to bet on less risky - chances. Subjects were required to bet on the outcome of 30 trials of dice throwing in which they had to select amounts to bet, as well as choose one of seven alternative bets with given probabilities. The findings were that more internal subjects tended to choose significantly more bets of intermediate probability, and significantly fewer low-probability bets, than did external subjects. Also, more internal subjects than external subjects never selected an extreme high - or low - probability bet, plus, they wagered more money on cautious than risky bets. In other words, internal subjects revealed more of a tendency to self-regulation with respect to objective probabilities.

For a similarly structured chance task, Lefcourt (1965) found that Black subjects tended to behave more like internals (regulating themselves with regard to objective probabilities) than white subjects. This finding was interpreted as indicating that the Black subjects, though they had been found to behave in an external fashion on skill tasks, reversed this behavior for a chance task, because, "success in externally controlled situations (luck- or fate- determined) seems more controllable for the Negro (sic?) who believes that goals derived through achievement will be denied him regardless of his effort, while externally controlled goals are, at least, obtained fairly" (Lefcourt, 1966b, page 215).

Locus of Control Beliefs and Need Achievement

In the introductory section of this paper, a careful distinction was drawn between the motivation to achieve mastery and beliefs about whether or not events or situations are susceptible to influence. A person high in achievement motivation might believe that he could not influence his environment while a person with low achievement motivation might still feel that his own behavior determines the type of reinforcements he obtains.

Studies which obtained need achievement scores and locus of control scores reveal low negative correlations between need achievement and degree of internality (Lichtman and Julian, 1964; Odel, 1959; Chance, 1965). Even though the Lichtman and Julian study correlation coefficient (r = - .27) was insignificant, the correlation coefficient (r = - .25) found in the Odell study was almost identical and it was significant.

ANTECEDENTS OF LOCUS OF CONTROL BELIEFS

Implications for the identification of sources of locus of control beliefs can be gained from studies where relationships between scores on control measures and identifiable characteristics such as sex, home environment, social class, and ethnicity have been found.

A definitive study on the relationship of sex to locus of control beliefs is yet to be performed. Of the research completed so far, some (Crandall, et al., 1965; Coleman et al., 1966; Boocock et al., 1967) reveal that girls expressed higher internal control beliefs than boys; another (Chance, 1965) found a small but significant tendency for boys to make more internal responses; while a third set of researchers (Battle and Rotter, 1963) found no differences.

Probably the most extensive discussion of sex differences is given by Entwistle and Greenberger (1970) who found no significant differences between Black boys and girls, but did find significant differences for rural and middle class whites in a complex interaction between subscales of the IAR (the IAR has a subscale for beliefs over control of successes and a subscale for control over failure), sex, and IQ. Boys were more inclined to attribute their successes to their own efforts and their failures to external causes while for girls the reverse was true. Also, boys showed strong relations between IQ level and control scores while girls showed no relation or even a slight reversal between IQ scores and control scores. The authors point out that if they had not looked at the two subscales (control over successes versus control over failures) scores in relation to sex; but rather combined the scores, girls would have tended to exceed boys in internality, in agreement with Crandall et al., Coleman et al., and Boocock et al. In addition, the interaction of IQ with sex and scale indicates that variations between sex might appear when the variance is actually due to an interaction between IQ, sex, and scale.

The findings of no differences between Black boys and girls may also explain why Battle and Rotter found no significant sex differences in their study as their sample was partially Black.

Sex differences are also often found when parent-child relationships and child-rearing practices are looked at in relation to children's locus of control beliefs. Some home environment factors are found to be important for girls, but not for boys and vice versa.

In general, most studies which reveal correlations between parent-child relationships and focus of control beliefs in children, find that warm, accepting, approving, supportive, and flexible behavior on the part of parents promotes the development of internal control beliefs in children, especially boys.

Reimanis (1970), for example, found that for males, a warm, supportive, and consistent home related positively to internality. For females, the correlations found were not as stable, however, they suggested that somewhat rejectant home conditions may be more conducive for girls in developing internal control beliefs.

Chance (1965) using the qualities of the mother-child relationship as independent variables, found that children with a high preference for achievement tended to have warm, accepting mothers, who expected and rewarded competence. The extent to which a child develops internal control beliefs seems to depend to some extent upon whether the mother responds to the cues the child emits regarding his growing mastery. If she had been inflexible in her timetable for his development, the child tended to be more external. Maternal attitudes did not seem to be as strongly related to control beliefs for girls as they were for boys.

Katkovsky et al., (1966) also found differences according to which subscale of the IAR scale they used. Correlations between parents' babying, protectiveness, affectionateness and nurturance were somewhat higher with the child's score on the responsibility for failure subscale than those between parents' behavior and the responsibility for successes subscale. In other words, these parental behaviors were better predictors for control beliefs for failure than for control beliefs for success.

These correlations held for girls as well as boys though for girls, there appears to be some point of paternal affectionateness and nurturance which is optimum for the development of internal control beliefs with respect to failures. If paternal affectionateness and nurturance exceeds this point, the girl will tend to be more external.

For control beliefs with respect to success, the girls with rejective, punitive, and dominating mothers tend to give more external answers on the success subscale, though such maternal behaviors seemed to have little impact on boys. On the other hand, mothers' nurturance, affection, and protection were related to degree of internality for boys, but not for girls. In other words, boys will be more likely to have internal control beliefs if they experience maternal love and support, while girls will be more likely to have external control beliefs if they experience parental rejection and authoritarianism (Katovsksy et al., 1966). These findings are compatible with those of the Chance study.

In the same study, Katvosky et al., (1966) also investigated the relationship between children's control beliefs and the degree to which their parents reacted positively or negatively to their childrens' behavior. In other words, the independent variable was the extent to which the majority of responses of the parent to the child's behavior were rewarding versus punishing. The researchers found that the more positive a mother's responses the more likely the child was to have internal control beliefs about academic successes--this was revealed most strongly for boys. The more a father praises and rewards his daughter's intellectual achievement behaviors, the more likely she will be to take responsibility for her successes in these areas. Conversely, the more critical and negative the father's response the more likely the child will have external control beliefs about intellectual experience.

Katkovsky _et_ _al_., also compiles scores for parents on emphasis on achievement and acceleration attempts. Only one of the correlations was significant, that between mother's acceleration attempts and boys internal control beliefs with respect to failure.

Direct teaching of control beliefs by parents would also seem to be important. Shirley Jessor (Rotter 1966, p. 24) reported a correlation of .38 between mothers' coded answers to interview questions of internal-external attitudes and responses of their high-school children to a questionnaire similar to Rotter's (1966) I-E scale. Mothers' control beliefs were found to be similar to their children's beliefs. Jessor's sample was drawn from a tri-ethnic community.

Other variables which can be used to predict locus of control are social class and ethnic group membership.

Correlations between social class and locus of control beliefs have been found though the results are not conclusive. The usual finding is that the lower the socioeconomic class of an individual, the more likely he will be external (Franklin, 1963, and Battle and Rotter, 1963; Crandal et al., 1965; Coleman et al., 1966; and Strodbeck, 1958). Entwistle and Greenberger (1970), however, found a significant difference between social class and scores on a perceived control measure only when IQ was held constant and then control beliefs and social class were inversely related. The authors felt that this discrepency with previous findings might be related to the fact that they were using the IAR Questionnaire as opposed to a scale which measures control beliefs concerning a more comprehensive area. A study by Boocock, Schild, and Stoll (1967) presents data which supports wide divergence between the control beliefs sampled in the Coleman survey and the attitudes tapped by the IAR scales. Entwistle and Greenberger (pp. 6-7) point out that the IAR scales appear to be less reliable for lower status students and lower achieving students than for higher status students and higher achieving students, whereas the Coleman items appear to be reliable for individuals falling into the former groups.

The Entwistle and Greenberger article also draws attention to the possibility that the IAR questionnaire might produce a high score for internality when actually the individual was responding to attribution of guilt (p. 20). In other words, the authors suggested that the advisability of using the questionnaire across subgroups is questionable since there could be a change in perception of the meanings of the items across subgroups.

In most studies where social class is a variable, it is found to be confounded with ethnic group membership. Strodbeck (1958) using a concept which he refers to as mastery that seems to be very similar to the control dimension which stresses effectance belief, found Jewish middle-and-upper-class subjects more mastery believing than lower-class

Italians. Most of the variance was attributable to social class.

In the introductory section, a study by Tin-Yee Hsieh et al. (1969), was quoted with relation to differing world views relevant to locus of control beliefs. In that study, three groups: Chinese, Chinese-American, and American (sic ?), were compared as to differences in responses to a locus of control scale. The findings were that Americans (sic ?) were most internal followed by the Chinese-Americans, while Chinese gave the most external responses. These findings were significant. This study would support the contention that different cultures promote different locus of control beliefs.

Studies of different ethnic groups in the United States also indicate differences in locus of control beliefs, some of which can be attributed to cultural orientation. Graves (1961) in studying a tri-ethnic community composed of Ute Indians, Spanish-Americans and Whites found significant differences in internal-external control beliefs with Whites being the most internal, Spanish-Americans next most internal, and Indians being the least internal. In this case, the Indians had a higher average standard of living than the Spanish-Americans which supported Graves' contention (also based on a comparison of Indian versus Spanish-American cultural traditions) that in this case cultural orientation is an important source of variation in internal-external control beliefs.

A study by Lefcourt and Ladwig (1966) successfully predicted higher external-control expectancies among Black inmates versus White prison inmates. In this study, ethnic group would seem to be the best predictor of control belief differences as most of the inmates were of low Socio-economic backgrounds. The Battle and Rotter (1963) study, however, found an interaction effect between class and ethnicity. Lower-class Blacks were significantly more external than lower-class whites or middle-class Black and whites.

Lefcourt (1966a, 1966b) suggests that the factors in the relationship between externality and ethnic and social class membership have largely to do with the minimal power held by individuals of certain social class and ethnic groups in this country (1966b, p. 212). He says, "From these investigations it may be concluded that external-control orientation characterizes groups that are marginal in our society" (1966a, p. 189). He related this to the limitations or barriers placed in the way of persons of certain social class and/or ethnic group membership achieving valued societal goals. Possibly, we might conclude that individuals falling into these group experience feelings of alienation, in particular, a sense of powerlessness which would show up as external control beliefs.

A very important study which could serve to clarify the source of differing perceived locus of control beliefs for different social classes is that of Bartel et al. (1970). In this study of first, second, fourth and sixth grade school children of middle- and lower-class backgrounds, Bartel et al., found no significant differences between locus of control scores in the first and second grades for children of different socio-economic backgrounds, but did find a significant difference by the fourth grade which was sustained in the sixth grade. The Bialer scores of middle-class children showed a significant increase in internality between the first and sixth grades whereas for the lower-class children there was no significant increase. This interaction between social class and grade in school was significant even when IQ was controlled for, though the relationship between social class and control beliefs disappeared. These findings supported Bartel et al.'s hypotheses which were based on research indicating that school surroundings are different for middle- and lower-class children and that the actual content of instruction differs significantly by socio-economic level of the community in which the school is located. Their contention is that the content in middle-class schools supports internal control beliefs while the content in lower-class schools supports external control beliefs. These findings would suggest that to some extent the school experience that children have in the United States contributes to the development of their control beliefs with middle-class children being facilitated in the development of internal control beliefs and lower-class children being facilitated in the development of external control beliefs.

STUDIES RELEVANT TO ALTERATION OF LOCUS OF CONTROL BELIEFS

Haan (1968) gives some data on the effects of a school curriculum (developed by a regional laboratory which stresses that children be encouraged to take more responsibility for drawing their own conclusions and for learning in general. In addition, the techniques for implementing the curriculum were designed to promote that end. It was hypothesized that children exposed to the curriculum would acquire a more internal control orientation. Using a test for locus of control beliefs designed by Francis Zavola, the curriculum was found to be effective, especially for boys. The results were in the predicted direction for both boys and girls, but only the advances made by boys were significant.

Reimanis (1970) reports on some efforts to modify perceived locus of control beliefs in early grade school children and college students by counseling on behavior-effect contingencies. Counseling was followed by marked changes in scores on perceived locus of control scales (though for the female college students, the changes did not appear to be long-lasting as the gains in internality were lost in seven months). As Reimanis is careful to point out, this change in verbalized attitudes may not be indicative of a change in more complex behavior. He does, however, offer some non-systematic and somewhat subjective data supporting the viewpoint that the change was behavioral as well as attitudinal.

Another study having relevance to modification of internal-external control beliefs was performed by Lefcourt (1967). Concerning college student populations, Lefcourt theorized that a fair proportion of students may be described as generally motivated to succeed at achievement tasks, but that differential striving obtains. He felt that this variation was due not to differing motivation, but to differing propensities to perceive the availability of achievement reinforcements. He felt that these propensities are related to internal-external control beliefs, the internal control oriented individual being quicker to perceive the challenge to achieve mastery. He also pointed out that both internal and external control subjects may be characterized as potentially achievement motivated since reliably low correlations between perceived locus of control scores and need achievement measures have been found. (See page 28)

To test his hypothesis, Lefcourt designed a study in which three groups, each composed of an equivalent number of externals and internals, were given different directions ranging from low to high cue with respect to pointing out what reinforcements were available in the task. The results indicated that subjects characterized (according to scores on a locus of control scale) as having internal control beliefs exhibited similar internal behavior regardless of the cuing they received. The external-control oriented individuals, on the other hand, were affected by the cuing in that those receiving higher levels of cuing tended to exhibit a marked increase in internal related behavior especially as measured by the incidence of patterns in the level of aspiration tasks. The data supports the hypothesis that external control oriented individuals fail to differentiate situations with regard to reinforcement availability, and that they can be influenced to exhibit more internal behavior if they are cued as to the availability of reinforcements in particular situations.

In another study, Lefcourt and Ladwig (1965) attempted to alter external control related behavior. A group of Blacks who had previously been defined as an external control group were found to persist in a competitive task with whites when it was indicated that the skills required in the task were related to an area (jazz) in which Blacks felt some mastery. The authors concluded that the exhibition of more internal behavior on the part of the Blacks stemmed from the cognitive linkage between the experimental task and previous successes that the individuals had had.

In both these studies, as Lefcourt points out in a later article (1966a, p. 192), there was no particular indication that generalized expectancies for external control had been directly altered. Rather, performance on a particular task had been affected in the direction of increased internality. He hypothesizes that a series of similarly structured experiences would result in more pervasive changes in generalized expectancies. In other words, the suggestion is that the accumulation of experiences in which internal control behavior brings about successes or positive reinforcements will result in the adoption by the individual of more internal control beliefs.

MORE RESEARCH NEEDED

Given that our present educational system does intervene in the control belief formulation of its students as indicated by the Bartel et al., study, it is urgent that the appropriateness of this intervention be examined. It is extremely questionable that a justification can be made for the continued existance of educational approaches which selectively facilitate the development of internal control orientations in middle-class children and the development of external control orientations in lower-class children.

The indications of locus of control research are that internal control beliefs are positively related to educational achievement. From a superficial point of view, then, advocation of educational systems structures so as to promote the development of internal control beliefs would seem to be indicated. Determination of the appropriate course of action, however, is not so simple.

In light of the point that the control beliefs that are dominant in the United States are strongly internal while the world views predominant in other cultures such as that of the Chinese (Tin-Yee Hsieh et al., 1969) and certain nations of American Indians(Graves, 1961) favor a more external viewpoint, it becomes evident that for some children development of internal control beliefs might bring them into conflict with their own cultural matrix. In fact, the possibility of teaching values in conflict with the child's native culture might also arise in the case of whites if the sex difference in control beliefs found by various researchers stem from cultural norms.

It is our opinion that the dangers of educating individuals counter to their cutlural values may not be problematic for locus of control beliefs related to specific cultural and social contexts. For example, it might not be in conflict with American Indian cultures to teach internal locus of control beliefs with relation to federal government agencies. Whether or not specific, situation-bound expectancies for internal control can be found for broad areas of life situations for particular sub-groups characterized as external has not been adequately determined. A well divised investigation of this topic would be extremely useful at this point.

A similar problem to the one just discussed has to do with the source of locus of control beliefs in relation to the existence, for individuals of certain socioeconomic and ethnic backgrounds, of real barriers which limit the amount of control these individuals can exert over their life situations. Attempting to intervene in locus of control beliefs without also attempting to provide increased options for securing equal opportunities would seem to be inadequate, if not harmful. Decisions about the adjustment of the educational structure must be made on the basis of the total context of the child's life rather than on the basis of educational needs which are considered in isolation.

Among a small, but growing number of educators there is the realization that parents are a neglected resource as well as rightful participants in the formal education of their children. Should the option be provided to parents to become involved in the educational decision-making process, a number of problems related to locus of control issues would be rendered more soluble. Education is perceived as an important mediator between individuals and their future opportunities. By providing parents with options for securing equal (and real)[4] opportunities for their children, the development of internal control beliefs in parents would be facilitated. And, as a consequence of exposure to models with increased internal control beliefs, it might be expected that the development of internal beliefs in the children would also be facilitated. In addition, decisions relevant to the amount of harmony required between cultural values and school experiences would be placed, to some extent, in the hands of those who stand to be the most effected by such decisions.

We would suggest, at this writing, two strategies. One method of providing parents with options would be to make information available to them concerning their capabilities and rights as participants in the structuring of their children's formal education. The Seeman (1963) study, however, indicates that individuals with external control beliefs are unlikely to be susceptible to information pertinent to influencing their life situations.

The Lefcourt (1967) study, as well, suggests that individuals who are external are not likely to have a high degree of readiness to recognize possible benefits available in such situations, though his research does support the notion that internal behavior with respect to specific situations can be induced by adequate cuing as to the availability of rewards. Discounting the time that would be required to convince externally oriented parents of their rights to influence their children's education, the acquisition of power by parents would probably be a lengthy process. Another approach would be to facilitate their acquisition of such power by the generation of programs which require the inclusion of parents in decision-making procedures.

Finally, we would suggest that existing locus of control tests be subjected to a thorough investigation as soon as possible. Results from use of the IAR questionnaire indicated that for one individual, control beliefs relating to positive reinforcements may be independent from beliefs relating to control over negative reinforcements. Thus, tests without subscales differentiating between beliefs about control over successes versus control over failures to some extent confound these beliefs by yielding a single score. It is important that the degree to which such tests confound these variables be understood and that the consequences of this confusion be spelled out.

Secondly, and more importantly, the reliability of existing tests for ethnic minority and lower status individuals must be assessed. The language of and situations described in existing tests are probably much more appropriate for white middle-and upper-class individuals than for individuals of different social class and/or ethnic class membership. Undoubtedly, test reliability scores, were they available, would tend to decrease according to the extent to which the language of the test differs from the dialect of the respondent and the extent to which the situations posed are not salient to the respondent. Crandall_et al_.,(1965) for example, in discussing the development of the IAR questionnaire (which has been shown to be of low reliability for lower-status groups, (see page 49 of this paper) indicate that care was taken to focus on children's beliefs in the instrumentality of their own actions compared with that of other people in _their immediate_ environment. Item #24 reads:

"If a boy or girl tells you that you are bright, is it usually:
a) because you thought up a good idea, or b) because they like you."

The relationships prevalent for different communities or neighborhoods are likely to differ. Would the comment referred to in item #24 be one that is routinely made by members of a Black child's reference group?

The importance of the locus of control variable is such that researchers cannot afford to use tests which are of questionable reliability for individuals of differing ethnic groups and social class membership.

In discussing the implications of locus of control research for educational planning, we have not attempted to be comprehensive, but rather to present indications which seem to have the most bearing on the pressing educational needs of today's students. We have stressed only those research directions which appear to have the highest priorities with respect to rendering our present educational system more beneficial to its clients.

APPENDIX A: Measures of Locus of Control

The first scale devised to measure individual differences in generalized expectancies for internal versus external control of reinforcements was developed by Phares (1957). The 26 item Likert-type scale contained 13 items stated as external beliefs and 13 items stated as internal beliefs. Phares found that the scale, developed on a priori grounds, predicted in the correct direction, though not significantly, that individuals giving more external answers would behave in a fashion similar to that of all individuals when placed in a chance situation versus a skill situation. In other words, they showed (1) more unusual shifts, (2) a smaller magnitude of increments and decrements, and (3) a lower frequency of shifts of expectancy in any case than did subjects who scored low on the 13 external items (Rotter, 1966, p. 9).

James (1957) revised the Phares scale, replacing less successful items with new items and including filler items. He tested the reliability of the measure in the same fashion as Phares, investigating the ability of the measure to predict individual variation within the chance and skill groups. He was able to find low but significant correlations between his test and behavior in the task situation.

Liverant in association with Rotter and Seeman undertook the revision of the James-Phares scale. The objectives were to develop subscales for different areas such as achievement, affection, and general social and political attitudes. They were also interested in controlling for social desirability. With these objectives in mind, a hundred forced-choice items were devised, each item comparing an external belief with an internal belief. Responses to the scale were item analyzed and factor analyzed by Liverant with the result that 40 items were discarded on the basis of internal consistency criteria.

Item analysis of the remaining 60 items indicated that achievement items tended to correlate highly with social desirability, while some subscales correlated with other subscales at the same level as their internal consistency. The attempt to generate separate subscales was abandoned.

After running correlation between responses to the Marlow-Crowne Social Desirability Scale (Crowne and Marlowe, 1964) and considering item validity data from the Seeman and Evans (1962) study of tuberculosis patients and the Rotter, Liverant, and Crowne (1961) study, Liverant, Rotter, and Crowne, eliminated items which either had a high correlation with the Marlowe-Crowne Social Desirability Scale or a correlation approaching zero with both validation criteria. Of the remaining items, a number were eliminated on the basis that one of the two alternatives was endorsed more than 85% of the time or that the item failed to correlate with other items. The remaining items numbered 23 and the scale was increased to 29 with the addition of 6 filler items whose purpose was to obscure the purpose of the test. This scale is referred to as the I-E scale (see Rotter 1966 for a copy of the scale plus reliability and biserial item correlation data). Correlations with the Marlowe-Crowne Social Desirability Scale are presented (as are means and standard deviations on the scale for a wide variety of samples).

Factor analyses on responses to the 29 item I-E scale have been performed with the result that much of the general variance was found to be included in a general factor. Additional factors related to only a few items, and only a small degree of variance for each factor could be isolated. The reliability of these factors was too low to justify the isolation of clearcut subscales within the test. Another factor analysis of responses to the I-E scale, was performed by Franklin (1963) on his sample of high school students with similar results.

In his discussion about the test-retest reliability, the validity and internal consistency of the I-E scale, Rotter also speaks to two other issues. The items on the scale are phrased in terms of beliefs, the subject is expected to choose the alternative which most closely matches his belief rather than his preference. Secondly, Rotter points out that the test is an additive one and items are not comparable, but, rather, are samples of attitudes in a wide variety of different situations. Thus, two individuals could receive approximately the same score on the scale even though they gave divergent answers for each item.

Rotter also presents correlations obtained between the I-E scale and other scales and measures. With the James-Phares scale, the older 60 item version of the I-E scale was found to correlate, r= .56 (Blackman, 1962) and r= .58 (Johnson, 1961).

Individual's responses to a story-completion test devised by Adams-Webber (1963) were analyzed according to the source of control at work in the story completions. The subjects were divided into groups based on the number of external endings they gave to the three stories. Analysis of variance evidence a significant difference (p= $<$ .001) among groups with respect to I-E scores. Subjects scoring as more external on the I-E scale gave more external endings.

Cardi (1962) developed a measure of internal-external control orientation based on responses to a semi-structured interview. Based on the interview responses, the individuals were categorized as either tending toward internality or toward externality. Cardi obtained a biserial correlation of .61 for subject's categorization as either internal or external and their scores on the I-E scale. The correlation was significant at the .002 level.

A number of tests for internal-external control beliefs have been devised for children, only three of which will be discussed. One of the earliest tests was one devised by Bialer (1961) which was a modified version of the James-Phares Scale. Reliability data for Bialer's Locus of Control Scale for children is given in Bialer's 1961 article, and in Bialer and Cromwell (1960).

A second scale (Intellectual Achievement Responsibility--IAR) was developed by Crandall, Katkovsky, and Preston (1962) for assessment of "self-responsibility" in achievement situations. The items deal with the extent to which the child feels that he, rather than other persons, usually cause the successes and failures he experiences in intellectual achievement situations. Because the designers of the test felt that the dynamics operative in assuming credit for causing positive things to happen might be very different from those operative in attributing blame to oneself for unpleasant consequences and, therefore, develop at differential rates, the IAR was constructed so that, in addition to a total score indicating internality or self-responsibility, separate subscores could also be obtained for beliefs in internal responsibility for successes and for failures (Crandall _et_ _al_., 1965, p. 94).

The children's IAR scale is composed of 34 forced - choice items, 17 of which describe a positive achievement experience which routinely occurs in children's daily lives and 17 describing negative achievement experiences. One alternative of each item attributes responsibility to someone else in the child's immediate environment. Split-half and test-retest reliabilities are presented in the 1965 article. For a sample of children from elementary and high schools ranging across socioeconomic classes, reliability scores were found to be moderately high. Subscale scores for success-and failure-responsibility were found to be generally independent of each other.

Rhiengelheim, Bialer, and Morrissey (1969) present a revised version of the IAR questionnaire. Chiefly the questionnaire was shortened and its language simplified to facilitate its usage with retarded children.

Entwistle and Greenberger (1970) have included in their article, a fairly comprehensive discussion of the reliability of the IAR questionnaire, based on data collected by the authors. One set of data indicated that the homogeneity estimates for the two separate subscales of the IAR were low enough to raise doubts concerning the instrument's reliability for inner city and blue collar respondents. A second set of data (collected as part of a separate study) presented test-retest correlations for a large (N=121) sample of white middle-class low-achievers. The test - retest correlations were low even though the sample was quite large. Reliability data collected by Entwistle and Greenberger for students of average or above average ability from middle-class background however, compares well with prior reports (see Entwistle and Greenberger p. 6 for reliability figures).

The authors point out that previous reports do not investigate test reliability for low-achievers. They conclude that the considerably lower reliability for lower status students and for lower - achieving students evident in their data suggests that the scales are less appropriate for such groups. From reliability data from the Coleman items (given on p. 7 of the Entwistle and Greenberger article), it appears that the Coleman items are more reliable for low - status respondents.

In a 1963 article, Battle and Rotter discuss a projective task devised to assess children's control beliefs. The "Children's Picture Test of Internal-External Control" was originated by Battle. The test contains six cartoon depicted items in which the child states "what he would say" in various "lifelike" situations involving the attribution of responsibility. The reliability of the scoring procedure was established with an independently scored sample. The six (6) items were selected from a preliminary test composed of forty (40) items. Twenty-nine (29) items were eliminated because they failed to discriminate between respondents. Six (6) items were retained from the remaining eleven (11) on the basis of their correlation with the total scores with that item removed. The responses to each item are scored along a seven-point scale with three (3) degrees of "internality," three (3) of "externality," and a non-discriminatory midpoint.

The study reported by Battle and Rotter (1963) involved the administration of both the Bialer Locus of control questionnaire and the Children' Picture Test of Internal - External Control to a sample of 80 sixth and eighth - grade children selected on the basis of sex, social class (lower versus middle-class), and ethnic group (Black versus white) membership from five metropolitan schools in Columbus and Dayton Ohio. The Bialer questionnaire was found to relate significantly to the Children's Picture Test (see Battle and Rotter, p. 488 for correlation figures).

NOTES

1. Underlying the notion of control over events is the subject of causal relationships between events. Though the perception of causality has been discussed by Piaget (1930), Michotte (1963), and Pepitone (1958); Rotter (1966) assesses that individual differences in how causality is assumed to relate to events has not been a subject of extensive investigation.
2. Taviss (1969) makes a distinction between social-alienation and self-alienation. The phenomenon described above would fall under the rubric social-alienation while self-alienation refers to a disavowal or loss of contact of an individual with those feelings, desires, or perceptions he has that are not approved of by his society. A person who is self-alienated has lost control of himself. This concept of self-alienation is somewhat similar to Riesman's (1954) idea of the "other-directed" person. Riesman's concept of other- versus inner-directedness refers to the extent to which a person is controlled by internal goals, desires, etc. versus the extent to which he is controlled by external forces, in particular, social forces, conformity forces.
3. An unpublished manuscript, "Internality as a determinant of academic achievement in low SES adolescents," Syracuse University, 1963, referenced in Rotter's 1966 article, p. 22.
4. The phrase "equal opportunity" is often an empty cliche as the "opportunity" at issue often does not, in fact, exist. It is our judgement that an "opportunity," to be real, must meet - at a minimum - the following criteria: (1) the "opportunity" must be positioned in such a way that it can be perceived, (2) the option of taking or not taking advantage of the

"opportunity" must, in fact, exist without prejudice, (3) the "cost" of taking advantage of the opportunity must be perceived to be reasonable; and (4) the opportunity must be perceived by the individual to be relevant to his needs, goals, lifestyle, and experience.

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APPENDIX B

INCONSISTENCIES BETWEEN THE HOME AND SCHOOL ENVIRONMENTS OF LOW-INCOME BLACK CHILDREN

Pilot Home-School Environmental Study Results

PRELIMINARY DRAFT

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ABSTRACT

In a preliminary planning study of hypothesized areas of inconsistency between home and school environments and the effects of this inconsistency on a small sample of Black children (Johnson, Clement, Lee, 1971, see appendix 2), we found that the home environments of the children observed in the study tended to differ from the school environment they were exposed to in the areas of discipline, roles afforded the child in decision making, behavioral dimensions salient to the adults involved, and types of problems the children encountered. In short, the responses and reinforcements that the children received from the teacher were based on an orientation toward behavior which differs from that of the parents. Disciplining techniques were widely divergent in the two environments, and the decision-making role of being consulted that the children experienced at school was not typical of their homes. Also, at home the children tended to have problems associated with people, while at school the predominant type of problem was with objects.

The observed children received punishment in the school for physical fighting, whereas fighting in certain situations was expected by the parents. The parents in our sample sometimes disciplined verbal arguments and squabbling, while the teacher did not. The teacher expected the child to behave in a manner conducive to the activity underway in the classroom; the parent expected the child to behave respectfully toward the parent, not disrupt the parent's activity, fulfill his responsibilities, and not violate parental restrictions. The teacher negatively valued the dialect spoken in the children's homes.

On the basis of a large number of comments and assessments made by the teacher, it seems safe to conclude that the teacher believes that homes with certain characteristics (frequently used by white, middle-class individuals to describe non-white, low-income home environments--e.g., lacking a father-husband) produce children who misbehave and who are inhibited in mastery of cognitive skills because they have not developed what the teacher perceives to be good habits. In fact, the teacher's sole perspective on the childrens' home environments appears to be one of deficiency rating as measured against "normal" (middle-class) standards.

The behavior of the children in the home versus the school, as measured by use of a behavioral checklist, varied significantly in five behaviors with adults and in six with peers. In other words, as we would interpret the findings, the differences encountered between the home and school environments are reflected in varying behavioral characteristics or profiles associated with the two environments.

Although the sample size was small, some of the differences revealed by the study are marked enough to suggest strongly that a similar study using a larger sample would in all likelihood reveal: 1) equally large differences between the home and school environments for low-income children in the areas indicated; 2) conflicting values placed on the same behavior; 3) a large number of teachers who have similar beliefs to those of the teacher in this study; and 4) differences between the children's behavioral profiles in the two environments.

Method

A preliminary study of hypothesized areas of inconsistency between home and school environments and the effects of this inconsistency on children was performed for a small sample of Black children. Our hypotheses were:

1. The home environment of the minority group child will tend to differ from the school environment to which he is exposed, namely:
    - a. The adults in the school environment will tend to use different disciplining techniques than the adults in the home.
    - b. The child's role in decision making at home will tend to differ from his role in decision making at school.
    - c. The categories of behavior which are salient to the adults in the home environment will tend to be different from those categories which are salient to the adults in the school environment.
    - d. Children will tend to encounter different types of problems in school than they do at home.
2. To some extent, behavior appropriate in the home environment will be negatively received in the school environment and vice versa:
    - a. In the school environment, the child will tend to receive negative reinforcement for behavior learned and/or valued at home.
    - b. In the home environment, the child will tend to receive negative reinforcement for behavior learned and/or valued at school.

3. The "understanding" that the adults in the school environment have of the children will tend to be based on the adults' perceptions of the child's home environment as measured against middle-class standards and stereotypes.
    a. The teacher will tend to evaluate children's home environments on the basis of white middle-class standards and the teacher will attribute negative effects to environments which deviate from those standards.
4. Children will tend to beha[illegible]fferently in the school environment than they do in the home environment:
    a. Children will tend to use different problem -solving strategies in the school environment than they do in the home environment.
    b. The behavioral characteristics of the child in the home environment will tend to be different than the behavioral characteristics of the child in the school environment.
5. The more similar the child's home environment to the school environment, the less difference there will be between the child's behavior in the two environments.
6. Children's locus of control beliefs concerning the school situation will tend to be related to the degree of difference they encounter between the home and school environments.
    a. The more similar the home and school environments, the more internal the child will tend to be about the learning situation.

Research Techniques and Instruments

The majority of the data collected consisted of observations made by a trained observer for four areas of concern: 1) decision-making roles; 2) discipline techniques used with the child; 3) problem-solving strategies; and 4) a behavioral check (Appendix A contains a description of each area and the observation instruments utilized.) Each child was observed at scheduled intervals for each area of concern. The time schedule was:

Week 1 . . . . 3 minutes for each area of concern
Week 2 . . . . 6 minutes for each area of concern
Week 3 . . . . 9 minutes for each area of concern
Week 4 . . . .12 minutes for each area of concern
Week 5 . . . .15 minutes for each area of concern

In each area, except that of the behavioral checklist, observation was terminated once the behavior at issue was manifest. The observation procedure was followed both in the home and in the school.

Additional data collected consisted of: 1) semi-structured interviews with each child, the mother of each child, and the children's teacher, 2) the children's scores on a locus of control measure, 3) five regularly scheduled tape recordings of student-teacher interaction in the classroom and 4) assessments made by previous teachers of each child as available from the children's cummulative records.

Interviews with the mothers and the teacher were structured to elicit indications of salient dimensions of behavior and associated value loadings. The mothers and the teacher were asked to give their impressions of the child and his behavior. Their responses were tape recorded for later analysis.

Each child was interviewed on tape for 10 minutes during the last week of observation. The interviews were structured to elicit likes and dislikes of the child. Also, questions concerning whether or not the child had had certain experiences were included. The locus of control questionnaire (see Appendix B) was also administered to the children during the final week of observation.

Sample Selection

The study was conducted in a low-income are of Los Angeles having a total population of 48,505. Approximately 30% of the population of the area is Black. The children selected for the sample were enrolled in the area school with the highest percentage of low-income children (over 50%). A classroom was selected from among the second grade classrooms in the school by dice throw and the names of those children in the classroom eligible for free lunch were entered upon a list. The list of 24 names was alphabetized and every third child was selected for inclusion in the sample.

RESULTS AND INTERPRETATIONS

Sample Characteristics

All eight (8) of the children in the study were Black and from families which met the OEO Poverty Guidelines. Four of the children were female and four male. Their ages ranged from 6 years 9 months to 11 years 1 month. The mean age was 8 years 3 months. The children had from 1 to 7 siblings, with an average of 3 siblings.

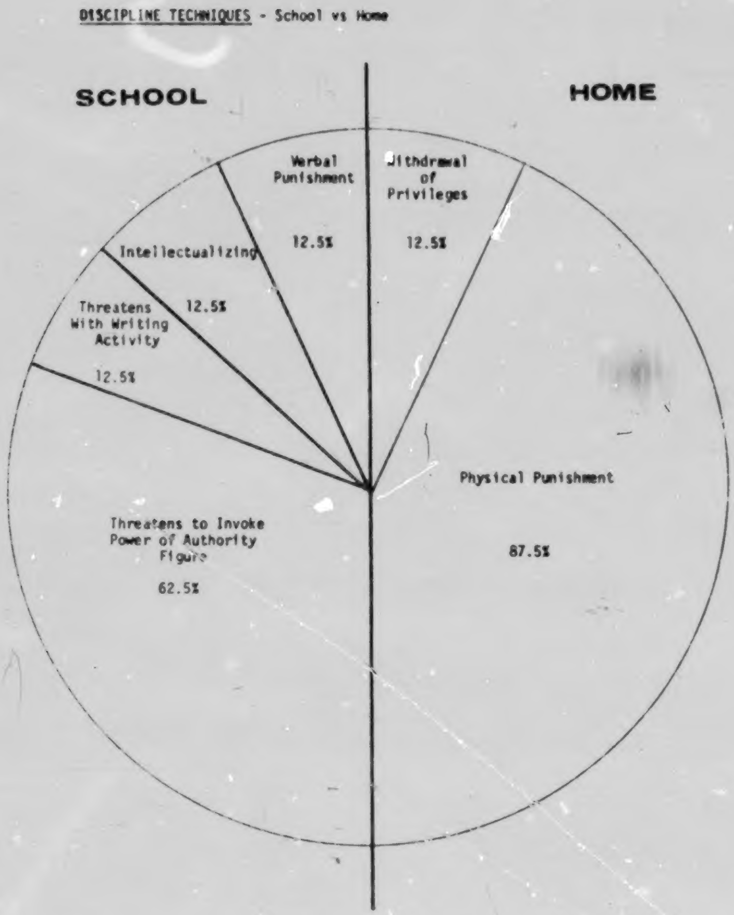
Information collected on the parents' birthplaces and the children's birthplace revealed that at least one parent of each child was born in the South East (North Carolina, Tennessee, Georgia, Louisiana, or Arkansas). Four of the children were born in California, two in Illinois, and two in the South (North Carolina and Georgia).

Study Findings

Hypotheses 1a: The adults in the school environment will tend to use different disciplining techniques than the adults in the home.

Figure 1a shows the type of discipline used in both environments and the percentage of times each was observed.

FIGURE 1a



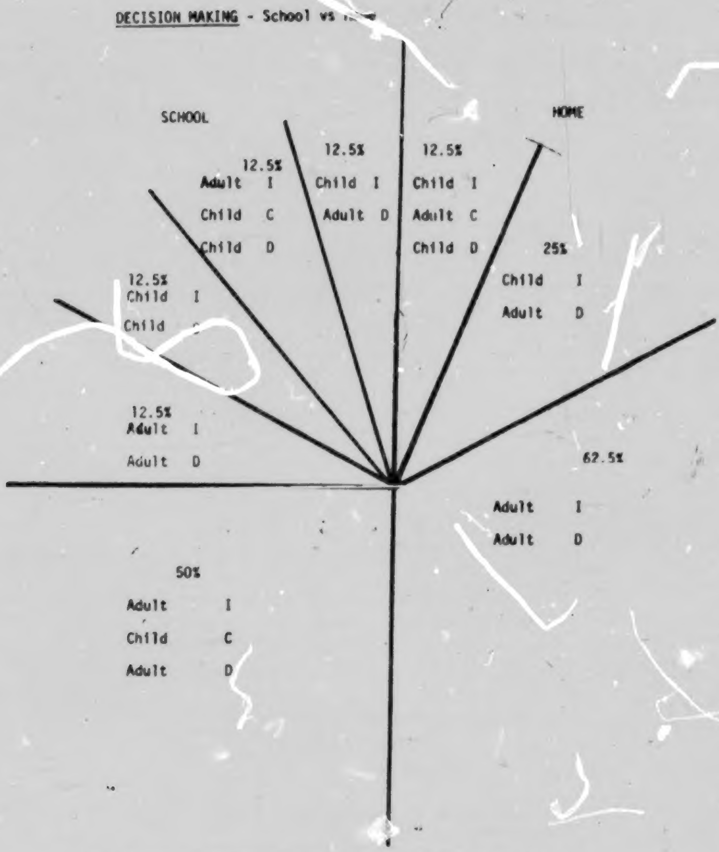
At home, physical punishment was the discipline most frequently used (87.5%) whereas at school threatening to invoke power of authority figure was the predominate strategy (50%).

In no case, was the disciplinary action used in the school of the same variety as the disciplinary action used in the home. Furthermore, at school, 75% of the observed cases consisted of threats as opposed to actions. The teacher attempted to manage the "misbehaving" child by threatening the child. At home, in every case, the response to misbehavior was direct action. Clearly, the disciplining techniques used by the teacher were not those that the children were accustomed to encountering at home.

Hypothesis 1b: The child's role in decision making at home will tend to differ from his role in decision making at school.

Figure 1b indicates the roles played in decision making by the child and adult in the school and in the home and the percentages associated with each combination of roles.

FIGURE 1b


DECISION MAKING - School vs Home
SCHOOL
HOME
12.5%
Adult I
Child C
Child D
12.5%
Child I
Adult D
12.5%
Child I
Adult C
Child D
25%
Child I
Adult D
12.5%
Child I
Child C
12.5%
Adult I
Adult D
62.5%
Adult I
Adult D
50%
Adult I
Child C
Adult D

I - Person who informed that there was a decision to be made
C - Person who was consulted if there was any negotiating
D - Person who made the decision

In the predominant form (62.5% of the cases) of decision making observed in the home, the child's role was passive. The adult indicated that a decision was to be made and made the decision. In the school, the predominate form (50% of the cases) involved the consultation of the child by the adult concerning a decision that the adult stated and then decided upon.

A conspicuous difference between the home and school is the role of being consulted. In over half the school observed cases, the child was consulted concerning the emminent decision. In the home, the child was never consulted. To the extent that the cases are representative, the child in his home has little experience in the role of being consulted.

Hypothesis 1c: The categories of behavior which are salient to the adults in the home environment will tend to be different from those categories which are salient to the adults in the school environment.

The interviews with the parents and the teacher involved a discussion of each child from the point of view of the teacher and the child's parent. In most cases, both negatively and positively valued behaviors and traits were mentioned. A content analysis was performed on the taped responses of the parents and of the teacher with respect to the dimensions of behavior and abilities that appeared to be salient to each. In addition to the interviews, observations having to do with behavior that elicited disciplinary action were made. (See Figure 2, page 16).

From these data and the interview data, the aspects of children's behavior and abilities important to the teacher appear to be:

a. Work patterns:
    1. working hard (positively valued)
    2. not completing projects (negatively valued)
    3. not being able to concentrate long (negatively valued)
    4. not planning time allocation (negatively valued)
b. Maturity:
    1. acting immaturely (negatively valued)
c. Cognitive ability:
    1. being brilliant (positively valued)
    2. being logical (positively valued)
    3. not able to make predictions (negatively valued)
    4. doesn't seem to have it (negatively valued)
d. Progress in and/or mastery of language ("standard" English), reading, writing, and math skills:

    1. making progress in and/or having mastery (positively valued)
    2. not having satisfactory mastery (negatively valued)
    3. using dialect (negatively valued)
    4. not making progress commensurate with ability (negatively valued)

e. Manual dexterity and coordination:
    1. doing well in tasks requiring manual dexterity (positively valued)
    2. displaying bad coordination (negatively valued)

f. Attitudes toward learning:
    1. wanting to learn, trying to learn (positively valued)
    2. willing to work (positively valued)
    3. lacking the "basic" attitude (negatively valued)

g. Classroom conduct:
    1. violating restrictions (negatively valued)
    2. not wanting to follow directions (negatively valued)
    3. acting in an argumentative fashion (negatively valued)
    4. not being able to sit still (negatively valued)
    5. causing trouble (negatively valued)
    6. disrupting the class (negatively valued)

h. Behavior with peers:
    1. physical fighting (negatively valued)
    2. not being able to get along with classmates (negatively valued)
    3. picking on weaker children (negatively valued)
    4. being picked on by other children*
    5. being liked by peers

---

*Value direction is not included on items for which the direction of value was not obvious or appeared to be neutral.

- i. Self-confidence:
    1. being shy
    2. not feeling good about self
    3. gaining self-confidence (positively valued)

Parents, on the other hand, focused on:

- a. Maturity:
    1. acting mature for age (positively valued)
    2. acting like a baby (negatively valued)
- b. Relationships with others:
    1. not having many friends
    2. shy with others
    3. leader of neighborhood group
    4. gets picked on too much (negatively valued)
    5. afraid to fight (negatively valued)
    6. verbal fighting or squabbling in certain circumstances (negatively valued).
- c. Intellectual ability:
    1. smart (positively valued)
- d. Behavior toward an authority figure (the parent):
    1. disobeying (negatively valued)
    2. talking back (negatively valued)
    3. bothering parent (negatively valued)
- e. Fulfilling responsibilities:
    1. failing to perform chores (negatively valued)
    2. failing to bring home change from the store (negatively valued)

Intellectual ability is a dimension that both the parents and the teacher focused upon. The teacher, however, mentioned both general abilities (e.g., being brilliant) and specific abilities (e.g., not being able to draw conclusions) both positive and negative while the parents mentioned only an overall positive assessment (e.g., being smart). Also, the teacher was prone to make comments about specific cognitive (e.g., reading) and motoric skills (e.g., muscular coordination) while the parents made no such comments.

Both parents and teacher made observations about maturity.

Both parents and teacher made comments about interactive patterns. Both made observations about shyness, whether or not a child had friends, and being "picked on" by other children or not. Also, both focused on fighting, though parents reacted negatively to verbal fighting (in the home) while the teacher reacted negatively to physical fighting. The teacher commented on the child's ability to get along with others and whether or not the child tended to bully others while the parents commented on leadership.

Dimensions that the teacher focused upon that the parent did not were: work patterns, attitudes toward learning, classroom conduct, and self-confidence with respect to work. Dimensions that were salient to the parents that were apparently not salient to the teacher were: behavior toward an authority figure and fulfillment of responsibilities.

For this sample, some dimensions of behavior appear to be salient both at home and in the school (though this does not mean that assessments were in agreement) while others appear to differ.

Hypothesis 1d: Children will tend to encounter different types of problems in school than they do at home.

Figure 1d shows the number of cases observed in the home and in the school which involved each type of problem (interactional versus environmental*).

FIGURE 1c

PROBLEM SOLVING STRATEGY- TYPE OF PROBLEM - HOME VS. SCHOOL

	HOME	SCHOOL
INTERACTIONAL	7	1
ENVIRONMENTAL	1	7

---

*The term interactional problem is used in this study to refer to problems encountered with people. The term environmental problem is used in this study to refer to problems encountered with objects in the environment.

Most of the problems observed at school (in the classroom) involved handwriting exercises and reading tasks. The teacher also felt that handwriting frequently posed a problem for the children. She used handwriting drills to punish the class for disorderly conduct. Many times the statement was made, "If you don't quiet down, we're going to do nothing but write all day." Her reasoning (as explained to the observer) was that being frustrated is uncomfortable, therefore, handwriting drills can justifiably be used as punishment since the drills are anxiety provoking to the children and bring them to the frustration level!

At home, the problems observed dealt primarily with arguments between the child and another child or sibling or something the mother did that upset the child.

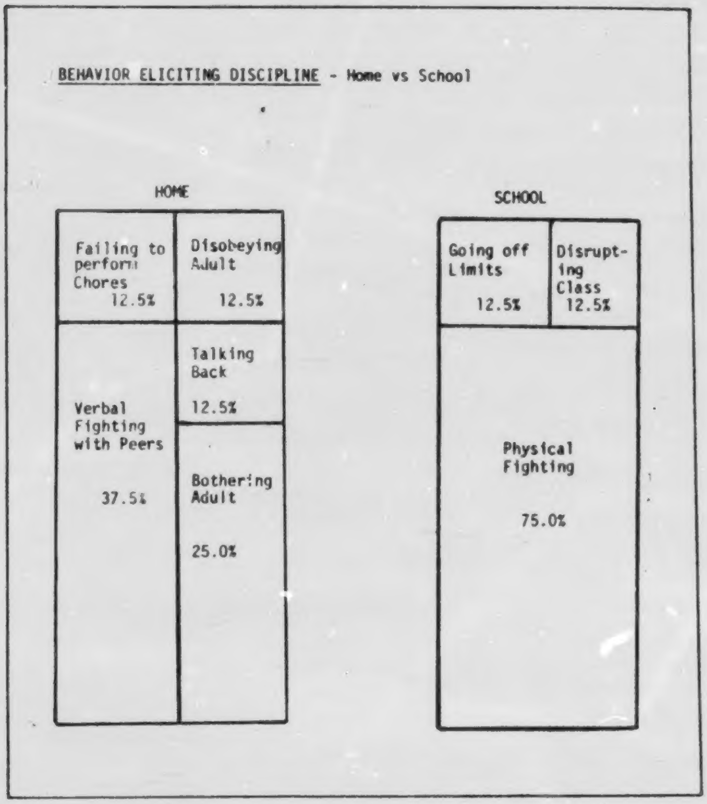
For the sample of problem-solving episodes observed, the divergence between the type (interactional or environmental) of problem encountered in the home versus the school is clear. Of the cases observed, more interactional problems occurred in the home and more environmental problems in the school.

Hypothesis 2a: In the school environment, the child will tend to receive negative reinforcement for behavior learned and/or valued at home.

2b: In the home environment, the child will tend to receive negative reinforcement for behavior learned and/or valued at school.

Figure 2 indicates behaviors that elicited disciplinary action.

FIGURE 2


BEHAVIOR ELICITING DISCIPLINE - Home vs School

At school physical fighting with peers was the behavior which elicited disciplinary action in 75% of the cases. From the parent and teacher interviews and observations, it appears that the teacher negatively valued physical fighting and punished its occurrence (see Figure 2), while parents expected their child to engage in physical fighting when the occasion warranted.

Verbal squabbling or arguing, on the other hand, was not among those behaviors that drew punishment from the teacher in the cases observed, while it constituted 37.5% of the cases at home. Since physical fighting is frequently preceded by verbal fighting, it appears that the parent intervened (if she was going to) at the verbal squabbling stage whereas the teacher intervened at the climactic stage.

Other behavior disciplined in the home had to do with behavior inappropriate with respect to the parent as authority figure (50%) and failure to perform chores (12.5%). At school the behaviors disciplined (other than physical fighting) had to do with disruption of the class (12.5%) and violation of standing restrictions(12.5%).[1]

In the area of classroom conduct and home conduct, the important feature in the school appears to be acting in a way which would be conducive to or conforming to the class activity while the salient features at home appear to be acting appropriately toward the authority figure (the parent), not disrupting the parent's activity, and observing restrictions the parent has set down. At school the child is expected to be doing a specified activity (e.g., watching a movie, studying, having recess) whereas at home the child is expected to do some activities (e.g., chores), but in the main he is expected to avoid certain activities (e.g., waking the parent who sleeps during the day and works at night).

With respect to fighting, there appears to be a direct conflict between the home and school. With respect to conduct, the "rules" appear to focus on different objectives which if carried from home to school or vice versa, might bring about negative reinforcement. For example, if a child is used to relating his behavior to the authority figure present, then he might be less responsive to considering his behavior in relation to the class as a whole. In other words, the teacher is focusing on the child's conformity to the group activity (ies) while the child is focusing on his behavior with respect to the teacher as an authority figure.

An additional area of conflict that is indicated by the interviews has to do with language. The teacher negatively values "dialect" and positively values "correct" ("standard" English) speech. The parents did not indicate negative feelings about Black dialect. Though it is clear that home speech is negatively received in class, it is not known from this study how school speech at home is (would be) received.

Hypotheses 3: The teacher will tend to evaluate children's home environments on the basis of white middle-class standards and the teacher will attribute negative effects to those homes which vary from the white middle-class home.

In giving her impressions of each child, the teacher invariably related her perceptions of the child's home situation. Following are examples of her comments:

> They're very bright boys. But what a difference in the families. Those parents [of one of the boys] are always over here, always asking what they're doing. The whole family. Those kids come to school - they're immaculate, well fed, ready to go to work, no arguments.
>
> Both parents work. She [the mother] worked nights - I believe she still does, and she'd come home and get them out of the house. She does send them, I mean they're clean, well fed and everything else. And she'd get them out of the house. The father, I never met but he's there 'cause the kids talk about him all the time so its a strict family routine.
>
> C____________is pretty fast, nice kid tho'. Again, it's the parents, real tight household. The kids are very well behaved and the mother was all by herself which was very unusual [that the kids are well behaved].
>
> All kinds of concepts they [the children] do not reach unless they are prepared from home and they meet them in the books and it's a total blank.
>
> The community is so apathetic. We tried and tried and tried. We've had meetings, we sent home fliers.
>
> Regarding community organization - "I know only about the one that was connected with the school where the community picks advisors to the teachers and do things like this but again, they're always the same people concerned. People who have children in school. People who are educated. People who have time to spend with these children. You don't get the parents who really should be coming out and we have absolutely virtually no PTA. Nobody will come out for it and it isn't the 50 cents for the membership or anything else. They're just not interested in working for the PTA."

> If we could get hold of these parents, teach them how to work with their kids, I think we'd be saving a lot of agony.
>
> I met her parents, both very nice people, very hard working respectful people.
>
> The family does not seem to be well off. He's had complete free lunches that I know of. I know that he was on welfare for a while. I know the father went to jail for a while.

From her comments made during the taped interview and at other points during the study, it appears that the teacher attributes classroom "misbehavior" to lack of home discipline and slow academic progress to failure on the part of the parents to provide important learning experience.

Generally, the teacher seems to expect (anticipate) trouble, bad behavior, and poor study habits from the children whose home environments, from the teacher's point of view, are lacking in sufficient supervision, lacking in a family routine, and lacking in sufficient funds to expose children to important experiences (e.g., snow). The teacher in this case was "alert" to cues concerning the amount of supervision the children received at home, the economic situation in the child's home, and the presence or absence of the father.

Hypothesis 4a: Children will tend to use different problem-solving strategies in the school environment than they do in the home environment.

Figure 4a - 1 indicates the types of problem-solving strategies used with the two types of problems (interactional and environmental).

FIGURE 4a - 1

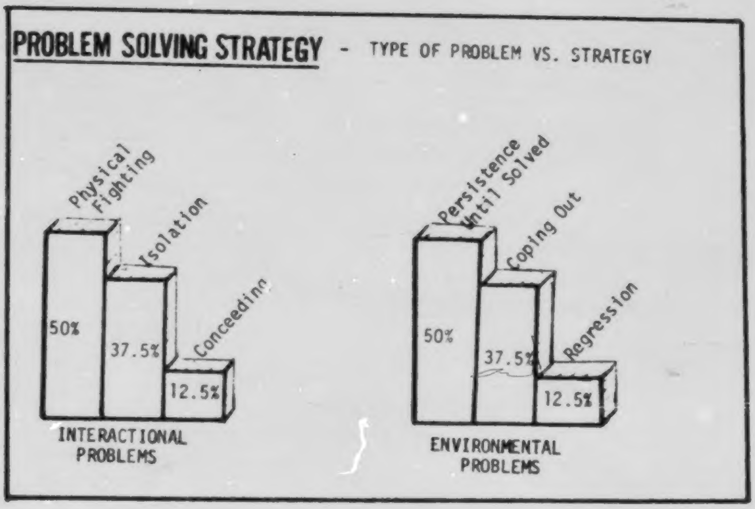
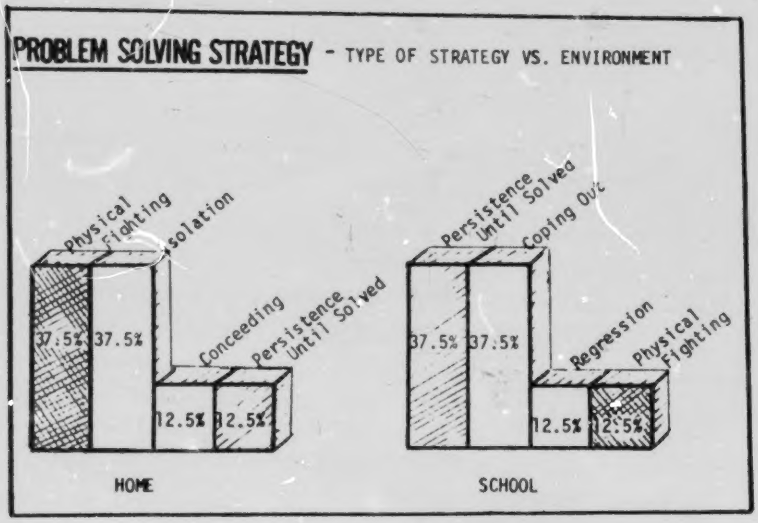


Figure 4a - 2 indicates the types of problem-solving strategies used in the home versus the school.

FIGURE 4a - 2



Since the predominant type of problem encountered in the school was environmental while the main type encountered in the home was interactional, it appears that the use of different problem-solving strategies in the school is probably due to the occurrence of different types of problems. In support of this idea, as can be observed from a comparison of Figure 4a - 1 and Figure 4a - 2, the strategy used with the one environmental type problem observed in the home was persistence until solved (a strategy frequently used with the environmental problems at school) and the strategy used with the one interactional type problem observed in the classroom was physical fighting (a strategy frequently used with interactional problems at home).

Also supporting the idea that the problem-solving strategies varied as a result of the environment are the similarities between the types of problem-solving strategies. For the two environments, a frequently used strategy was active or direct encounter with the person or thing interferring with the desired end states (physical fighting - 37.5% in the home and persistence until solved - 37.5% in the school). While another frequently used strategy was withdrawal from the problem source (isolation - 37.5% in the home and copping out - 37.5% in the school).

Though the distribution of problem-solving strategies appear to be roughly similar between the school and the home at this point, it is not clear that this similarity will be maintained as the child has more experience in school. In other words, at some later point, the "copping out" may be used to a much greater extent in school than "isolation" as a strategy at home.

Hypothesis 4b: The behavioral characteristics of the child in the home environment will tend to be different from the behavioral characteristics of the child in the school environment.

Observations of the child's behavior at home and school were made according to 24 selected categories (see Appendix A for a description of the behavioral checklist instrument).

Figure 4b - 1 shows the sample means for home and school for each category of behavior for adult interaction. Ratings were assigned on the basis of 5 - never, 4 - occassionally, 3 - often, 2 - most of the time, 1 - always. Thus, for the category "active," for example, the sample mean for home was 1.0 and for school, 2.5. In other words, the children tended to be more active at home than at school when interacting with adults.

FIGURE 4b - 1

FIGURE 4b - 1

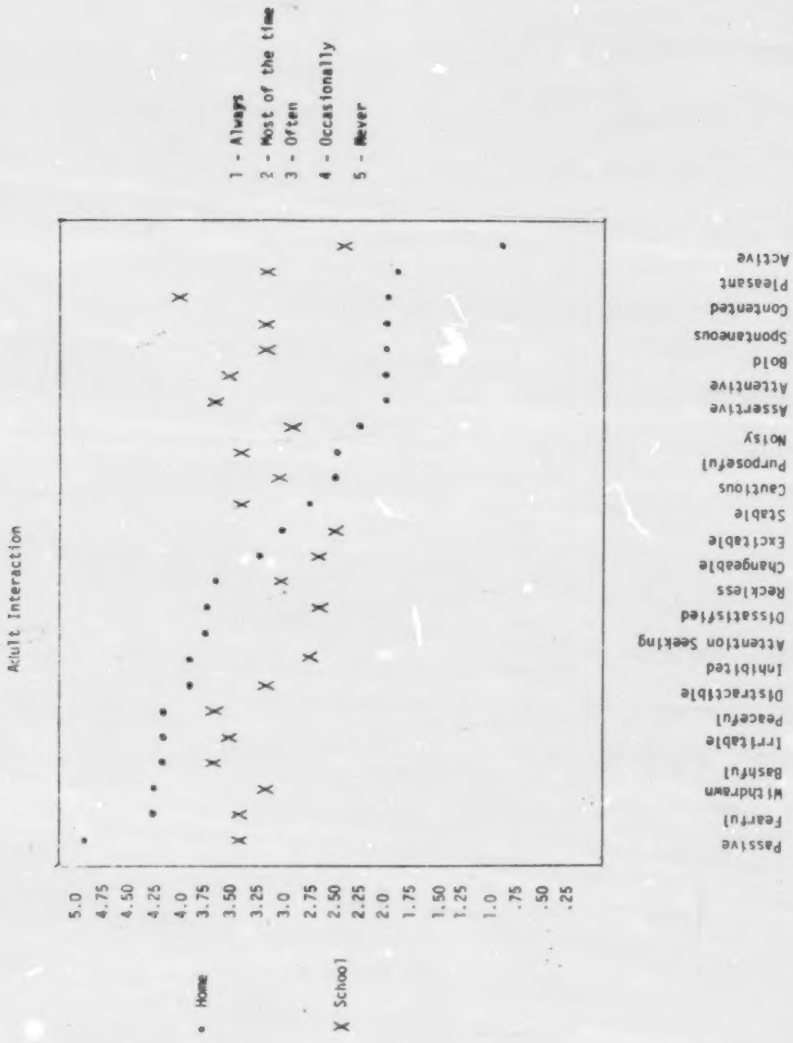

Adult Interaction
1 - Always
2 - Most of the time
3 - Often
4 - Occasionally
5 - Never
5.0
4.75
4.50
4.25
4.0
3.75
3.50
3.25
3.0
2.75
2.50
2.25
2.0
1.75
1.50
1.25
1.0
.75
.50
.25
Passive
Fearful
Withdrawn
Bashful
Irritable
Peaceful
Distractible
Inhibited
Attention Seeking
Dissatisfied
Reckless
Changeable
Excitable
Stable
Cautious
Purposeful
Noisy
Assertive
Attentive
Bold
Spontaneous
Contented
Pleasant
Active
• Home
X School

Figure 4b - 2 shows the sample means for home and school for each category of behavior for peer interaction. For example, the sample mean for "active" at home was 1.0 and at school, 2.25; the children tended to be more active at home with peers than at school with peers.

FIGURE 4b - 2

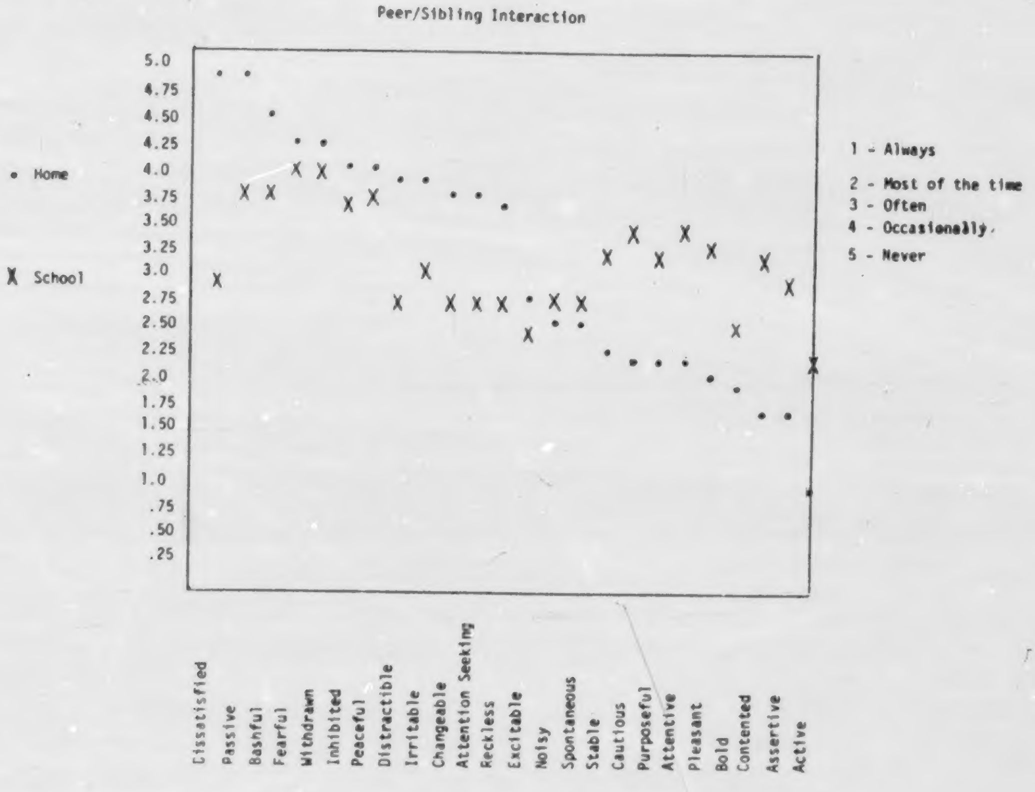


Table 4b - 3 shows the average differences between home and school for adult interaction, average differences between home and school for peer interaction as well as indications of the categories in which behavior was significantly different as tested by the Wilcox on matched-pairs, signed-ranks test.

TABLE 4b - 3

BEHAVIOR DIFFERENCES - Home vs School Average Differences

Behavior	Adult Int.	Signif. Level	Peer Int.	Signif. Level
a. dissatisfied	1.9	NS	1.4	$p < .02$
b. contented	2.5	NS	1.5	$< .02$
c. spontaneous	1.4	NS	1.0	NS
d. inhibited	1.3	NS	0.87	NS
e. reckless	1.4	NS	1.4	NS
f. cautious	1.8	NS	1.3	.05
g. noisy	0.87	NS	1.3	NS
h. withdrawn	1.1	$< .02$	0.75	NS
i. peaceful	0.87	NS	1.3	NS
j. excitable	1.8	NS	1.4	NS
k. fearful	1.4	NS	0.63	NS
l. bold	1.6	NS	1.6	NS
m. distractible	1.8	.02	1.4	.05
n. attentive	2.0	NS	1.5	NS
o. stable	1.4	NS	1.4	NS
p. changeable	1.4	NS	1.5	NS
q. purposeful	1.6	NS	1.5	NS
r. attention seeking	1.5	NS	1.3	NS
s. irritable	1.4	NS	1.4	NS
t. pleasant	1.8	NS	1.3	$< .02$
u. assertive	1.5	.02	1.3	$< .02$
v. bashful	0.75	NS	0.75	NS
w. active	1.5	.05	1.3	NS
x. passive	1.5	.02	1.1	NS

From Table 4b - 3, there was a significant difference between home and school in five behaviors for adult interaction. The children when interacting with adults in the school (versus the home) tended to be significantly more withdrawn, distractible, and passive and significantly less assertive and active. When interacting with peers in the school environment, the children tended to be significantly more dissatisfied, more distractible, less contented, less cautious, less pleasant, and less assertive than they were when interacting with peers in the home environment.

On the basis of this measurement, behavioral characteristics of the children did exhibit some marked variation between the home and school environments.

Hypothesis 5: The more similar the child's home environment to the school environment, the less difference there will be between the child's behavior in the two environments.

Table five (5) indicates the average difference between the behavior (as indicated by the ratings on the behavioral checklist) of each child with adults and with peers in the home versus school environments.

TABLE 5

BEHAVIOR DIFFERENCES - Home vs School Average Difference for Each Child

Rank Order	With Adults	Child #	With Peers	Child #
1	1.16	1	.75	8
2	1.33	8	1.04	2
3	1.37	2	1.12	4
4	1.41	4	1.20	1
5	1.54	5	1.25	3
6	1.62	3	1.25	5
7	1.75	7	1.58	6
8	1.83	6	1.70	7

After observations in the children's homes had been completed, the observer subjectively ranked the children's homes from the one she felt was most like a white middle-class home environment down to the one she felt was least like a white middle-class home environment. Her ranking was:

Most Like White Middle-class #8 (child #8)
#1
#7
#3
#6
#4
#2
#5
Least Like White Middle-class

Calculation of a rank - order correlation value (Kendall's Tau) indicates a low positive correlation (.143) between degree of home - school similarity and degree of similarity in the children's home versus school behavior with adults. The correlation value, however, is not significant. The value obtained for the relationship between degree of home - school similarity and degree of similarity in the children's home versus school behavior with peers is approximately zero (0.0) giving no support to the hypothesis.

The data from the study does not lend support to the hypothesis (#5), at least with respect to measurement of the variables by the instruments utilized in the study.

Hypothesis 6: The more similar the home and school environments, the more internal the child will tend to be about the learning situation.

Table six (6) presents scores on the locus of control measure for each child analyzed by control over successes versus control over failures.

Table 6

LOCUS OF CONTROL SCORES - Rank Ordering

Control Over Successes			Control Over Failures		
Rank Order	Score	Child #	Rank Order	Score	Child #
1	I4*	8	1	I3	6
2	I3	4	2	I2	1
3	I3	5	3	I2	2
4	I2	6	4	I2	7
5	I1	1	5	I0	3
6	I1	3	6	I0	4
7	I1	7	7	E1	8
8	E1**	2	8	E2	5

*I indicates "internal" - an internal person tends to believe he affects what happens to him.

**E indicates "external" - tends to believe he does not affect what happens to him.

Rank-order correlation coefficients (Kendall's Tau) calculated between ranking-order of the children according to degree of difference between home and school and both subscales scores yielded very small and non-significant values.

Hypothesis six (6) is not supported by data from this study at least insofar as the measures utilized.[2]

Summary and Conclusions

The home environments of the children observed in the study tended to differ from the school environment they were exposed to in the areas of 1) discipline, 2) roles afforded the child in decision making, 3) behavioral dimensions salient to the adults involved, and 4) type of problems encountered. In short, the children experienced widely divergent disciplining techniques, a role in decision-making (that of being consulted) which apparently is not typical of forms of decision making in their homes, and responses and reinforcements from the teacher based on an orientation toward behavior which differs somewhat from that of the parents. Also, at home, the children tended to have problems associated with people while at school, their problems were mostly with objects.

Children received punishment in the school for physical fighting whereas fighting in certain situations was expected by the parents. Parents sometimes disciplined verbal arguments and squabbling while the teacher did not. The teacher expected the child to behave in a manner conducive to the activity underway in the classroom; the parent expected the child to 1) behave respectfully toward the parent 2) not disrupt the parent's activity 3) fulfill his responsibilities and 4) not violate parental restrictions. The teacher negatively valued the dialect spoken in the children's homes.

On the basis of a large number of comments and assessments made by the teacher, it seems safe to conclude that the teacher believes that homes with certain characteristics (frequently used by white middle-class individuals to describe non-white low-income home environments - e.g., lacking a father - husband) produce children who misbehave and who are inhibited in mastery of cognitive skills because they have not had important experiences and have not been assisted in developing good habits. In fact, the teacher's sole perspective on the children's home environments appears to be one of deficiency rating as measured against "normal" (middle-class) standards.

In terms of problem-solving strategies, the children used different strategies in the home versus school environments. If the type of problem is controlled for, however, the differences disappear, and, in fact, if parallels are drawn between similar types of strategies used with environmental and interactional problems, respectively, the strategies used and their percentage of occurrence appears to be very similar across the two environments.

The behavior of the children in the home versus the school as measured by use of the behavioral checklist varied significantly in five behaviors with adults and in six with peers. In other words, as we would interpret the findings, the differences encountered between the home and school environments are reflected in varying behavioral characteristics or profiles associated with the two environments.

Rank-order correlation coefficients calculated (1) between degrees of difference in the children's behaviors and degrees of similarity between their home and school environments and (2) between locus of control scores and degrees of similarity between home and school environments are small and non-significant, not supporting either hypothesized relationship.

Although the sample size was small, some of the differences revealed by the study are marked enough to suggest strongly that a similar study using a larger sample would in all likelihood reveal: 1) equally large differences between the home and school environments for low-income children in the areas indicated: 2) conflicting values placed on the same behavior; 3) a large number of teachers who have similar beliefs to those of the teacher in this study, and 4) differences between the children's behavioral profiles in the two environments.

NOTES

1. The particular incident coded as violation of a standing restriction involved the children's playing under the building. The teacher gave the offenders a "lecture" on the danger of this act, given that the building structure was unsafe after the earthquake and might fall upon them. There were indications that a secondary if not a primary concern of the teacher centered about what the children were doing under the building. They sited their "hot girls club" meetings. She tried to elicit information about the club, through indirect questioning.

   Another teacher who was interviewed as to her impressions about a child in the sample, focused solely upon what she perceived as his tendency to make sexual advances toward teachers and other children and to engage in auto-sexual behavior. She reported that she had attempted to affect this behavior and that now he was behaving more "normally."

   Areas of behavior having sexual connotations to the teacher would appear to be of concern to the teacher, though direct communication with the children about these behaviors appears to be very circumscribed with the children recognizing but foiling the teacher's attempt to discuss such behavior.

2. Reliability testing on Crandall's IAR questionnaire (Entwisle and Greenberger 1970) indicates low reliability for these items for low-income individuals. (See Locus of Control Component description (appendix B) for a fuller explanation of the question of reliability of the IAR items).

Appendix A: Areas of Concern and Observation Instruments

The four areas of concern in observation and the instruments utilized are described below:

1. Decisions: We were concerned with the question what roles does the child, at home and at school, play in decision making processes? A decision matrix was designed (below) which facilitated recording data as to who (the adult, the classmate, the sibling nearest the child's age in the case of the home, or the child) informed that a decision was to be made; whom (if anyone) was consulted about the decision; and who decided. An episode was identified by the observer as a decision making episode when two alternatives were stated and one was chosen (as indicated by statement/action).

DECISION-MAKING MATRIX

ACTOR ↓ VARIABLE ↓	INFORMED	CONSULTED	DECIDES
ADULT			
CHILD			
SIBLING OR CLASSMATE			

SCHOOL ____________ HOME ____________

2. Discipline: The processes which the authority figures use to manage the behavior of the child was a second area of concern. A checklist (below) with eight (8) categories was used to record this data. The categories which were included were (1) verbal punishment, (2) withdrawal of affection, (3) withdrawal of tangible objects (4) withdrawal of privileges and activities valued by the child, (5) pleading behavior, (6) threatening to invoke the power of a higher authority, (7) physical punishment and (8) intellectualizing or explaining "why". These were checked off, and a descriptive statement of the behavior was recorded.

The behavior of the child which brought about the disciplinary action on the part of the adult (as indicated by the adult's comments) was also noted.

HOW ADULT MANAGES BEHAVIOR OF CHILD

DATE__________

TIME__________

CHILD______________________________

Adult (Relationship to Child)____________________

Home________ School________

Verbal Punishment	Withdrawal of Affection	Withdrawal of tangibles	Withdrawal of privileges and activities valued by child	Pleading Behavior	Threatens to invoke powers of authority figure	Physical Punishment	Intellectualizing (explaining why)	Other	Other	Other
escriptive tatement										

3. Problem Solving: The strategies that the child uses to solve problems was a third area of concern. An event or encounter was identified by the observer as a problem if it appeared to be inhibiting the child's desired end state. Problem solving was defined as the child's attempts to reduce the effects of inhibiting events or encounters. The problem solving strategies observed for in this study (data form below) were physical fighting, verbal fighting, temper tantrums, manipulation, reasoning out, rationalization, copping out, isolation (pouting), conceeding, regression, persistence until solved, (trial and error), and projection onto others.

For the purpose of this study, problems were categorized as to whether they were interactional (problem encountered while interacting with others) or environmental (problem encountered while interacting with objects).

PROBLEM SOLVING

Nature of Problem
Internal
Environmental
Interactional

Date ______

Time ______

Child ____________________

Nature of Problem ____________________

	Physical fighting	Verbal fighting	Temper Tantrums	Manipulation	Reasoning Out	Rationalizing	Copping Out	Isolation (Pouting)	Conceeding	Regression	Persistence until solved (trial and error)	Projection onto others	Other
HOME													
SCHOOL													

4. Behavior: The question of whether a child behaves consistently or inconsistently at school and at home was explored by using an adjective checklist developed by Earl S. Schaefer at the National Institute of Mental Health. Schaefer's list of 68 adjectives was divided into 24 groups of synonyms (dictionary determined) and a representative adjective was selected from each group, yielding a 24 item list. Each child was rated four (4) times for each adjective at home with 1) the sibling nearest his age, and 2) the adult with the executive function; and at school with 1) a classmate and 2) the teacher. The ratings were made along a scale of 1 to 5: 1 - Always; 2 - most of the time: 3 - often; 4 - occasionally, and 5 - never. The data form used follows:

DATE ____________

TIME ____________

Dissatisfied
1 2 3 4 5

Contented
1 2 3 4 5

Spontaneous
1 2 3 4 5

Inhibited
1 2 3 4 5

Reckless etc.
1 2 3 4 5

Cautious
1 2 3 4 5

Noisy etc.
1 2 3 4 5

Withdrawn etc.
1 2 3 4 5

Peaceful etc.
1 2 3 4 5

Excitable etc.
1 2 3 4 5

Fearful etc.
1 2 3 4 5

Bold etc.
1 2 3 4 5

Distractible
1 2 3 4 5

Attentive
1 2 3 4 5

Stable
1 2 3 4 5

Changeable
1 2 3 4 5

Purposeful
1 2 3 4 5

Attention seeking
1 2 3 4 5

Irritable etc.
1 2 3 4 5

Pleasant etc.
1 2 3 4 5

Assertive etc.
1 2 3 4 5

Bashful etc.
1 2 3 4 5

Active etc.
1 2 3 4 5

Passive etc.
1 2 3 4 5

1-Always
2-Most of the time
3-Often
4-Occasionally
5-Never

RED - SCHOOL
BLUE - HOME

CHILD ____________
Peer, sibling interaction ____

Authority figure interaction ____

Appendix B: Locus of Control Measure

Locus of control refers to the degree to which an individual feels external factors control what reinforcements he receives from his environment. Crandall, Kathovsky, and Crandall (19) have devised a measure (the Intellectual Achievement Responsibility Questionnaire) which supposedly measures the degree to which the respondent feels responsible for successes and failures in the area of intellectual achievement, nine (9) were chosen for use in this study. The nine (9) items were selected in the following manner:

1. Every third item with a third person singular subject was selected.
2. All of the items with you as subject were selected and items alternating between every fourth and fifth selected item was chosen.
3. These two sets of items were then arranged in the order in which they appear in the Crandall *et al*, instrument.

The nine (9) items used are included below:

DATE______________

TIME______________

CHILD____________________________________

1. Suppose you did better than usual in a subject at school. Would it probably happen
   a. because you tried harder, or I +
   b. because someone helped you E +
2. Suppose a person doesn't think you are very bright or clever.
   a. can you make him change his mind if you try to, or I +
   b. are there some people who will think you're not very bright no matter what you do E -
3. When you find it hard to work arithmetic or math problems at school is it
   a. because you didn't study well enough before you tried them, or I -
   b. because the teacher gave problems that were too hard? E -
4. If your parents tell you you're acting silly and not thinking clearly, is it more likely to be
   a. because of something you did or I -
   b. because they happen to be feeling cranky E-
5. When you don't do well on a test at school, is it
   a. because the test was especially hard, or E -
   b. because you didn't study for it I -
6. If a boy or girl tells you that you are bright, is it usually
   a. because you thought up a good idea, or I +
   b. because they like you? E +
7. When you find it easy to work arithmetic or math problems at school, is it usually
   a. because the teacher gave you especially easy problems, or E +
   b. because you studied your book well before you tried them I +
8. If a teacher says to you, "Try to do better," would it be

a. because this is something she might say to get pupils to try harder, or E +
b. because your work wasn't as good as usual? I -

9. Suppose you're not sure about the answer to a question your teacher asks you and the answer you give turns out to be wrong. Is it likely to happen

a. because she was more particular than usual, or E -
b. because you answered too quickly? I -

APPENDIX C

DETAILED DESCRIPTION OF TASKS IN PLANNED CHANGE ACTIVITY IN PARENTAL-INCLUSION COMPONENT

Task Strategy for Phase I (Domain Definition)

Task 1: Sample selection of parents. In each of two school districts (A and B), Samples of approximately 15 parents will be selected. Within each 15 person sample, stratified quota sampling will be conducted according to income distribution.

Task 2: Sample selection of students. Some as Task 1, except students will also be stratified by grade (primary grades, upper elementary, middle or junior high school, and high school).

Task 3: Sample selection of teachers same as in Task 1, except that there will be no income sub-samples.

Task 4: Sample selection of building administrators. Same as Task 1, except that there will be no income sub-samples.

Task 5: Sample selection of comprehensive services personnel. Same as Task 1, except that there will be no income sub-samples.

Task 6: Sample selection of district supervisory personnel. Same as Task 1, except that there will be no income sub-populations.

Task 7: Sample selection of assistant and associate superintendents (where possible). Same as Task 1, except that there will be no income sub-populations.

Task 8: Rotation discussions (video-tape procedure) see CULAS will be used with a sample of five representatives from each stakeholder group. The resultant tapes will be used as a source of descriptions.

Task 9: An interview schedule will be developed for systematic elicitation of descriptions of existing parental roles. These interviews will be conducted with the remaining 10 representatives in each sample. This procedure and the procedure mentioned in Task 1 through 7 taken together should elicit a wide range of descriptions. The range is particularly important in this area as the linkage role presently does not exist. In other words, there may be alternatives which the respondents would be very attracted to, but which they would not readily think of as a result of constant exposure to present roles.

Task 10: Train Interviewers

Task 11: Conduct interviewing

Task 12: Data analysis and preparation for Phase II.

Though this data is not meant to be generalizable to the population as a whole (because the elicitation procedures are open-ended), the data are helpful in gaining a general overview of community perceptions. Thus in addition to selecting respondent descriptions for later tasks, a summary will be prepared of the information in this phase.

Task Strategy for Phase II (Role Descriptions by Activities Matrix)

Task 1: Sample selection. Same as for Phase I, Task I.

Task 2: Selection of items for the Matrix and preparation of Matrix interview format.

Task 3: Training of interviewers to perform the Matrix interviews.

Task 4: Data Collection.

Task 5: Data analysis. The data collected will be processed or arranged by computer programs and physical models determined by multi-dimensional coding techniques will be built from the data. Summaries will be prepared indicating matches between role descriptions and activities for each subgroup (set of stakeholders) and indicating similarities between descriptions and between activities.

Task 6: Selection of role descriptions for the judged-similarity phase based on clusters evident from the Matrix phase.

Task Strategy for Phase III (Judged Similarity of Role Descriptions)

Task 1: Sample Selection - Same as Phase I, Task I.

Task 2: Training of Interviewers.

Task 3: Administration of the judged-similarity interviews.

Task 4: Data analysis including listing of verbatims and a multi-dimensional scaling model of the similarity structure.

Task Strategy for Phase IV (Preference for Role Descriptions and Activities)

In this phase, the sample size is increased because it is at this point that generalization to the larger community becomes important.

Task 1: Sample selection. Same as for Phase I, Task I except that the sample size for each stakeholder group is 50.

Task 2: Selection of descriptions for preference list #1 (descriptions) and activities for preference list #2 (activities).

Task 3: Training of Interviewers.

Task 4: Administration of preference rankings.

Task 5: Data analysis multi-dimensional scaling of individuals according to preference correlations will be performed allowing indication of whether or not items included have the needed draws among the different groups. In addition, correlation coefficients will be obtained for preference rankings for the role descriptions and activities. Thus, activities and role descriptions which appeal to various stakeholder - populations (but not to others) can be determined. An additional form of analysis, is draws of descriptions of parental roles over roles parents are currently playing.

Task 6: Selection of descriptions and activities for the final preference task.

Task Strategy for Phase V (Development of Specifications)

Task 1: Sample selection. Based on preference of the parental roles selected in plans from the preceding Phase, samples of 30 individuals for each preference will be selected. For example, if there are three parental roles selected, then there will be 30 individuals who would choose type A, 30 who would choose type B, and 30 who would choose type C.

Task 2: Prototype development stimulus materials (films, photographs, drawings, verbal descriptions, etc.) representing various educators' ideas of what each parental role would look like, teacher-pupil interaction for each type, and parent-teacher interaction for each type are collected for each area.

Task 3: Matching tasks are developed where respondents are asked to match the parental role to the stimulus materials.

Task 4: Training of interviewers.

Task 5: Administration of matching task.

Task 6: Data analysis-determination of the best match of parental role with stimulus material utilizing an observed over Expected (O/E) measure. A summary of specifications in cluding those from Task 6 in the preceding Phase will be compiled.

Task Strategy for Phase VI (Implementation and Evaluation)

Task 1: Select participant sites identified in Phase II of Alternative Routes to Credentialing.

Task 2: Select parents to fill roles.

Task 3: Train parents as necessary.

Task 4: Install parents in roles.

Task 5: Monitor parental activities.

Task 6 Comparison of predicted reactions against observed reactions.

Task 7: For sample of 30 stakeholders in each school, matching of perception of actual parental roles against the description of the parental roles.

Task 8. Analysis of matching data.

Task 9: Summary of the predicted versus observed reactions relative to the degree to which the parents are perceived as matching the descriptions of the parental roles.

Task 10: Evaluation of the reception of the new roles in light of the developments in the schools at issue.

APPENDIX D

THE UNIVERSITY OF ALBUQUERQUE

Office of the
President

November 1[illegible], 1970

James A. Johnson, Jr.
Program Director
Multi-Ethnic Education
Far West Laboratory for Educational
Research and Development
1 Garden Circle, Hotel Claremont
Berkeley, California 94705

Dear Mr. Johnson:

Thank you for your extended remarks and observations regarding the possibility of developing a total and systematic approach in providing educational opportunities for the people you are anxious to serve. Be assured that we share some of your concerns and that we are anxious to cooperate with you in any legitimate endeavor designed to extend educational opportunities to those who do not now enjoy them.

Mr Robert Martinez, our assistant dean of students, has discussed your tentative proposal with me and I have assured him that our institution would be most pleased to sponsor a course - to which you refer in your letter as "Alternatives in Education" - partaking of the several course elements which you suggest. We will await your documentation for this course.

Beyond the offering of the course, "Alternatives in Education," we quite naturally wish to reserve at this time any judgment regarding our long-range participation assisting in the development of a total system or of offering any segment of it. You must certainly appreciate that such a decision ought to await the outcome of the planning that one would expect to emerge from the seminars and workshops.

D-2

In the meantime, and throughout the period covered by the initial planning course, the University of Albuquerque will offer what it can from its limited resources and substance, in keeping with the administrative principle that it cannot do well what it does not have the resources to do.

I appreciated hearing from you and do hope that we may eventually find a way to fit into the scheme of the program you are proposing. You will, of course, wish to maintain close contact with Mr Robert Martinez in working out details prior to the need for further decisions affecting the University of Albuquerque's involvement in your plan. Mr Risco-Lozando should also be advised to direct all correspondence to Mr Martinez.

Again, thank you for your thoughts and for the confidence you apparently have in our ability to cooperate with you in what certainly seems to be a noble endeavor.

Sincerely,

Frank A. Kleinhenz
President

cc: Robert Martinez
Mr Risco-Lozado
Kirby Krbec

ilg

5575 No. Noel Dr.
Temple City, Ca. 91780

Mr. James Johnson, Director
Multi-Ethnic Education Program
Far West Laboratory for Educational Research and Development
1 Garden Circle, Hotel Claremont
Berkeley, Ca. 94705

Dear Jim:

The following program outline meets with the approval with the Dean of Graduate Studies (Dr. Donald Clague) at La Verne College. The program design enables persons with an earned AA degree to transfer into a BA degree program at an established La Verne College resident center.

There are two assumptions concerning the entering students; first, the student has earned a minimum of 60 junior college units; and, second, he or she has a minimum of one year working in programs for youth, these include public school work, Head Start, Follow-Through, etc.

The general program outline takes-on the following characteristics:

Participants

1. Possess earned AA degree from an accredited institution
2. Have earned a minimum of 60 units
3. Have experience working in youth programs (public schools, Head Start, etc.)
4. Minority group member (American Black, American Indian, Spanish speaking American, Oriental-American)

Admissions Procedure

1. Completed La Verne College application
2. Transcripts for all work taken beyond high school (credit allowed for C grades or better)
3. Complete physical examination
4. Personal references
5. Interview with La Verne College representative and Program personnel

Academic Work Schedule

1. Minimum of 124 units of acceptable work completed (c grade or better)
   La Verne College work: minimum of 64 units
   Junior College transfer: maximum of 60 units
2. Resident Center study
   2.5 courses (10 units) per semester for four consecutive semesters and one summer session of 3.0 courses (12 units)
3. La Verne College campus study
   3.0 courses (12 units)

Costs

1. Total $64,000
   Assumes twenty (20) participants

One major criterion establishing a La Verne College resident center is the availability of library resources. It is therefore essential that a site be selected that has easy access to a college or university library.

The total cost of the program ($64,000) is arrived at by pricing each semester unit of college work at $50. The total dollar figure includes: La Verne College supervision, necessary library contract with on-site insitution, payment of instructional staff, all fees and tuition for twenty participants, seven (7) weeks room and board on campus during summer residency, and college monitoring staff travel.

The only costs which are not included are those resulting from required or optional textbook purchases and student supplies.

If you or your staff have any questions regarding the program proposal, please do not hesitate to contact me.

Sincerely yours,

Joseph M Conte

Joseph M. Conte

CC: D. Clague

APPENDIX E

INSTRUMENTS USED IN HOME-SCHOOL SIMILARITY

The four areas of concern in which observations will be made are:

1. Decisions: We are concerned, with what roles the child plays in decision-making processes both at home and at school. A decision matrix (see below) will be used to record data having to do with who (the adult/peer/sibling nearest the child's age in case of the home or child) is informed that a decision is to be made; who (if anyone) is consulted about the decision; and who makes the decision.

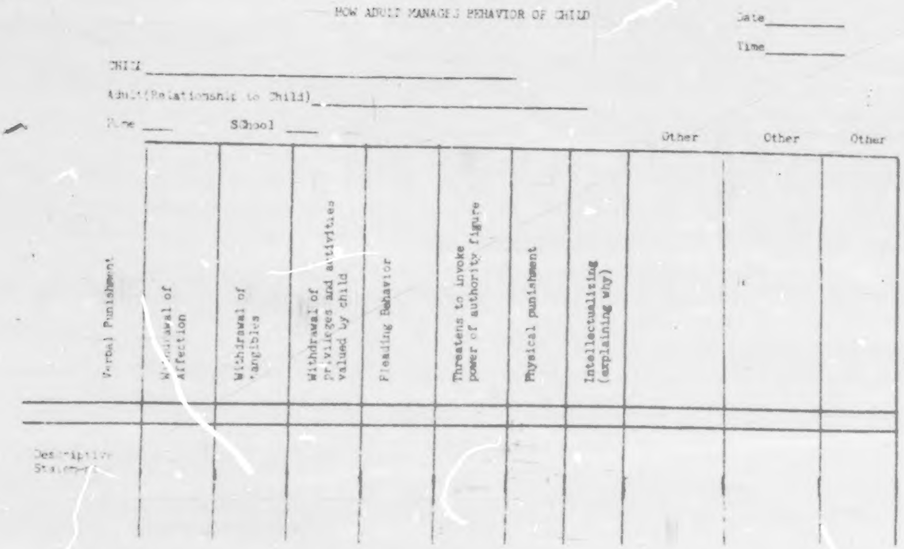
Decision-Making Matrix

ACTOR ↓ VARIABLE →	INFORMED	CONSULTED	DECIDES
ADULT			
CHILD			
SIBLING OR CLASSMATE			

SCHOOL_____ HOME_____

2. Discipline: The process which the authority figures use to manage the behavior of the child is a second area of concern. A check-list with eight categories will be used to record data (see below). The categories to be included (a) verbal punishment, (b) withdrawal of affection, (c) withdrawal of tangible objects, (d) withdrawal of privileges and activities valued by the child, (e) pleading behavior, (f) threatening to invoke the power of the higher authority, (g) physical punishment, and (h) intellectualizing or explaining "why." These will be checked off and a descriptive statement of the behavior will be recorded. The behavior of the child which brought about the disciplinary action on the part of the adult will also be noted.

Behavioral Adjective Checklist



HOW ADULT MANAGES BEHAVIOR OF CHILD

Date________

Time________

CHILD ______________________________

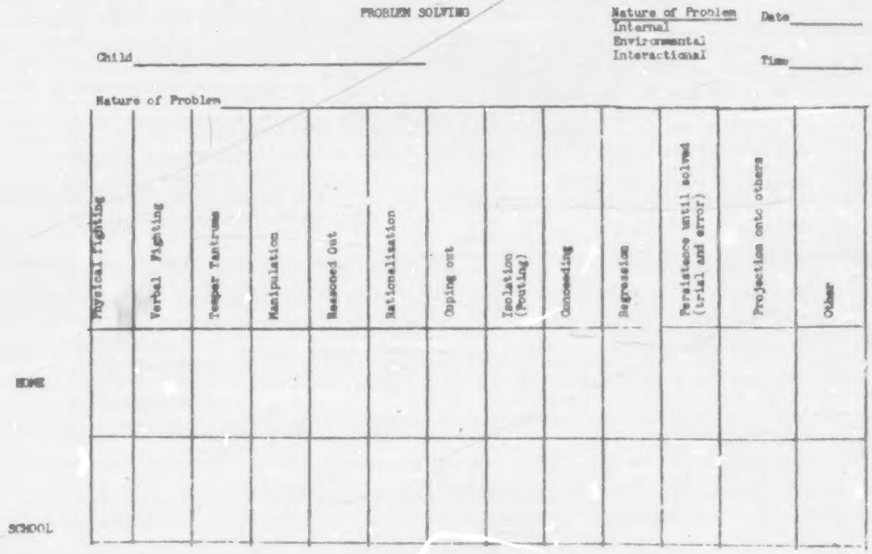
Adult(Relationship to Child)______________________

Home ____ School ____

Verbal Punishment	Withdrawal of Affection	Withdrawal of Tangibles	Withdrawal of privileges and activities valued by child	Pleading Behavior	Threatens to invoke power of authority figure	Physical punishment	Intellectualizing (explaining why)	Other	Other	Other
Descriptive Statement										

3. Problem Solving: The way that the child solves problems is a third area of concern. An event or encounter will be identified by the observer as a problem, if it appeared to be inhibiting the child's desired end state. Problem-solving is defined as the child's attempt to reduce the effects of inhibiting events or encounters. The problem-solving strategies observed (see below) will be physical fishting, verbal fighting, temper tantrums, manipulation, reasoning out, rationalization, copping out, isolation (pouting), conceding regression, persistence until solved, and projection. Problems will be categorized as to whether they are interactional (problem encountered while interacting with others) or environmental (problem encountered while interacting with objects).

Problem Solving Strategies List



PROBLEM SOLVING

Nature of Problem
Internal
Environmental
Interactional

Date________

Time________

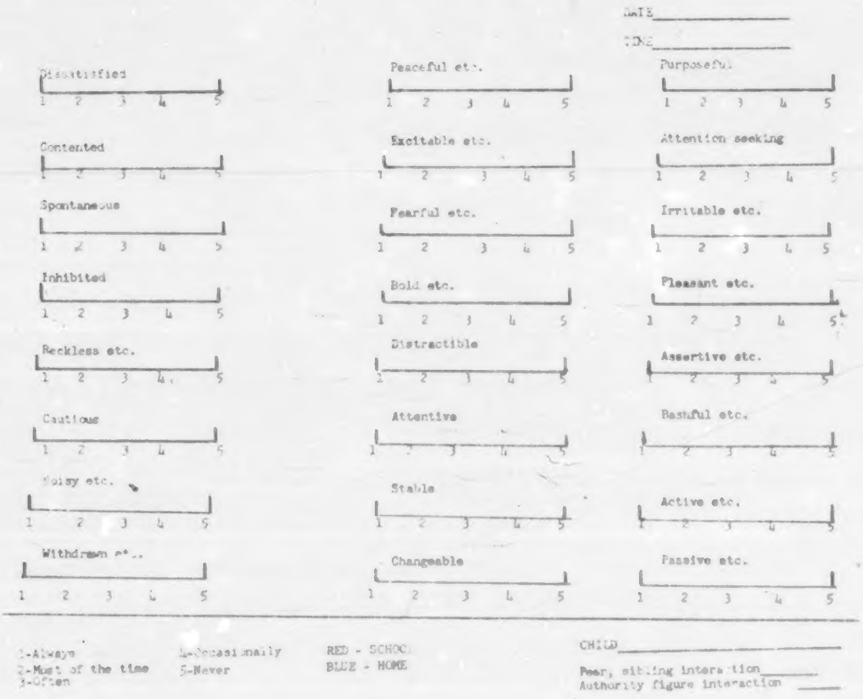
Child____________________________

Nature of Problem____

	Physical Fighting	Verbal Fighting	Temper Tantrums	Manipulation	Reasoned Out	Rationalization	Coping out	Isolation (Pouting)	Conceding	Regression	Persistence until solved (trial and error)	Projection onto others	Other
HOME													
SCHOOL													

4. Behavior: Whether a child behaves consistently or inconsistently at school and at home will be explored using an adjective checklist developed from that of Earl S. Schaefer at the National Institute of Mental Health. Schaefer's list of 68 adjectives was divided into 24 groups of synonyms and a representative adjective was selected from each group, yielding a 24-item list. Each child will be rated 20 times in all for each adjective: 5 times at home with the sibling nearest his age; 5 times at home with the adult with the executive function; 5 times at school with a classmate; and 5 times at school with the teacher. The final ratings will be made along a scale of 1 to 5: 1 - Always; 2 - most of the time; 3 - often; 4 - occasionally, and 5 - never.

Behavior Management Checklist



DATE____________

TIME____________

Dissatisfied
1 2 3 4 5

Contented
1 2 3 4 5

Spontaneous
1 2 3 4 5

Inhibited
1 2 3 4 5

Reckless etc.
1 2 3 4 5

Cautious
1 2 3 4 5

Noisy etc.
1 2 3 4 5

Withdrawn etc.
1 2 3 4 5

Peaceful etc.
1 2 3 4 5

Excitable etc.
1 2 3 4 5

Fearful etc.
1 2 3 4 5

Bold etc.
1 2 3 4 5

Distractible
1 2 3 4 5

Attentive
1 2 3 4 5

Stable
1 2 3 4 5

Changeable
1 2 3 4 5

Purposeful
1 2 3 4 5

Attention seeking
1 2 3 4 5

Irritable etc.
1 2 3 4 5

Pleasant etc.
1 2 3 4 5

Assertive etc.
1 2 3 4 5

Bashful etc.
1 2 3 4 5

Active etc.
1 2 3 4 5

Passive etc.
1 2 3 4 5

1-Always
2-Most of the time
3-Often
4-Occasionally
5-Never

RED - SCHOOL
BLUE - HOME

CHILD____________

Peer, sibling interaction________
Authority figure interaction ______

Space Descriptions Interview

1. What kinds of rooms or places are there in your school?
2. What's the (your) _______________ (each response to #1) like? (Probe: Tell me what it looks like.)
3. What do you do in the (your) _______________ (each response to #1)? (Probe: What else do you do there?)
4. Where else do you ___________________ (each response to #3)? (Probe: Is there anywhere else you _________________?)
5. What's the (your) ______________(each response to #4) like? (Probe: Tell me what it looks like.)

Interview Schedule to Elicit Items for the Children's Life-Control Beliefs Measure

1. What is life for? (Probe: What else?)
2. What should people do in their lifetime? (Probe: What else?)
3. What do people want to do in their lifetime? (Probe: What else?)
4. What determines whether people do ________________ (each response given to #2) or not?
5. What determines whether people do ________________ (each response given to #3) or not?

Interview Schedule to Elicit Items
for the Children's Education-Control Beliefs Measure

1. What is school for? (Probe: What else?)
2. What should students do in school? (Probe: What else?)
3. What do students want to do in school? (Probe: What else?)
4. What determines whether students do ______________?(each response given to #2)
5. What determines whether students can ___________ (each response given to #3) or not?

Interview Schedule to Elicit Items for the Parents' Education-Control Beliefs Measure

1. What is school for? (Probe: What else?)
2. What should parents do about school? (Probe: What else?)
3. What do parents want to do about school? (Probe: What else?)
4. What determines whether parents do ________________ (each response given to #2) or not?
5. What determines whether parents can _______________ (each response given to #3) or not?

Interview Schedule to Elicit Items for the Teachers' Education-Control Beliefs Measure

1. What is school for? (Probe: What else?)
2. What should teachers do in school? (Probe: What else?)
3. What do teachers want to do in school? (Probe: What else?)
4. What determines whether teachers do ______________ (each response given to #2) or not?
5. What determines whether teachers can _____________ (each response given to #3) or not?

Home-School Differences Scale

Directions

1.0 Salary

- 1.1 Subtract $5,500 from salary of head of household
- 1.2 Divide the difference by 2000
- 1.3 Add quotient to score

2.0 Schooling

- 2.1 Subtract six (6) years from total years of schooling of head of household
- 2.2 Divide difference by three (3)
- 2.3 Add quotient to score

3.0 Natural Parents

- 3.1 Add two (2) points to score if either one or both natural parents are present
- 3.2 Add 0 points to score if either one or both natural parents are not present

4.0 Density

- 4.1 If density is .75 or less go to 4.6
- 4.2 If density is greater than .75, subtract .75
- 4.3 Divide the difference by three (3)
- 4.4 Subtract the quotient from the total score
- 4.5 Go to 5.0
- 4.6 Subtract the density from .75
- 4.7 Divide the differency by three (3)
- 4.8 Add the quotient to the total score

5.0 Children

- 5.1 If the number of children is two (2) or less go to 5.6
- 5.2 If the number of children is more than two (2), subtract two (2)
- 5.3 Divide the difference by ten (10)
- 5.4 Subtract the difference from the score
- 5.5 Score calculation completed
- 5.6 Subtract the number of children from two (2)
- 5.7 Add the difference to the score

Consistency Efforts Scale

To score a particular classroom, add 10 points for each of the following consistency efforts that is being practiced in the classroom:

1. Inclusion in the classroom of adults whose home environment is similar to that of the child (according to the Home-School Differences Scale scores).
2. Use of cross-age or peer teaching (where the "teachers are of similar background to the child").
3. Use of the child's language or dialect in the classroom either exclusively or in a bi-lingual or bi-dialect program.
4. Use of a bi-cultural program in this classroom.
5. Occurrence in the classroom of ethnically oriented materials.

Option Checklist

To score a particular classroom:

1. Add 5 points if the children do not have assigned seats.
2. For 6 observation periods of five minutes, add 5 points for each period that the students talked more than the teacher in a group-teacher interaction.
3. Add 5 points for material in the classroom that the children may use or not use as they desire.
4. Add 5 points if there is any evidence that a child can terminate his participation in a classroom activity without sanction.
5. For 6 observation periods of five minutes, add 5 points if during any observation, students talked to one another without sanction in a group-teacher interaction.

Interviewer Tally Sheet

(Sample Format)

	familiar	unfamiliar
1. dish	////	
2. walk	////	
3. belt	//	//
4. puppy	///	/
5. more	////	
6. life	//	//
7. car	////	
8. east	/	///
9. the	////	
10. ran	////	

11. etc.

	familiar	unfamiliar
26. bread	///	/

child #1 Mama told me to buy some bread.

child #2

child #3 The bread is old.

child #4 He can't get much bread off of working at that job.

27. poison	////	
28. store	////	/
29. cook	///	
30. let	////	

31. etc.

APPENDIX F

RESEARCH ON COMMUNICATIVE COMPETENCE
LANGUAGE AND SCHOOL PERFORMANCE

Reading is the central skill in school achievement. It becomes increasingly more important as the child progresses through school. It is not that the child who reads poorly stops learning as he proceeds through school. Rather, his opportunities for demonstrating such learning in the school context are severly limited. As he proceeds through school, the printed page becomes a principle source of new information and the evaluation of his performance is largely based on this.

Economically disadvantaged children show a pattern of achievement which is progressively lower than that of the middle-class child. Many factors-motivational, attitudinal, social, cultural, etc. - have been identified as the cause of school failure for these children. Of these, language has become a principle one. The importance of language as the medium of instruction, mode of communication, and central variable in the acquisition of reading skills has been consistently noted. It is this latter concern - the relation between language form and reading ability - which is receiving the most attention. Dialect forms which deviate from the local "standard" are increasingly being identified as the cause of reading problems and poor scholastic achievement.

The school environment provides the middle-class child, especially the white middle-class child, with a learning environment which facilitates his language development. The variety of speech expected of him is the same for both school and home. The authority figure in his classroom is of his social class and he has had ample opportunity to interact with persons of this sort. Though the social context (the school experience) may be new for the middle-class child, there are enough points of similarity to allow a relatively easy transition into this new social environment.

On the other hand, children from low-income families enter a decidedly unfamiliar world when they enter school. They have had limited opportunities to interact with middle-class adults. Though they can usually comprehend the speech of the teacher, they are not as conversant in the middle-class dialect. These children use words, grammatical constructions, and pronunciations which the teacher views as inappropriate. If they are not already aware of it, the children soon learn that their speech is being negatively evaluated.

The notion that many ethnic children speak inferior varieties of English is ingrained in the dominant American culture and in the school environment. When the varieties of language spoken by ethnic children deviate sharply from the prestigious dialect of the area, the assumption often made by teachers is that the child is deficient in language development and/or intellectual capability - their solution to this problem is to teach the children to use "correct" speech.

In such an environment, the child has little opportunity to increase his linguistic competence in either his primary language or the valued dialect. Slow acquisiton of competence relative to the classroom norms negatively impresses educators as does low performance on other tasks indirectly dependent on linguistic competence. Systematic under-estimation of the child's abilities and lack of awareness of his developed skills and competencies render the teacher ill-equipped to structure learning environments with positive benefits for the child.

A number of viewpoints have emerged to account for the relation between language form and reading ability in Black pupils. One position which has been identified as the "deficit" theory assumes that the language structure of Black English speakers indicates some kind of linguistic underdevelopment. The underlying assumption is that the parent-child linguistic interaction is deficient in quality and complexity. It fails to provide the child with sufficient sensory stimulation to adequately develop his linguistic abilities. Reading failure is considered to be the consequence of linguistic and cognitive impoverishment (Deutsch, 1968).

A second position which has been identified as the "difference" theory acknowledges the completeness of the communication system for Black speakers. They defend the system as a complete and adequate system of communication for its users. They explain reading failure on the basis of structural and functional conflict. The structure patterns of Black English which produces He going John house can interfere with reading the standard construction of the text e.g., He is going to John's house. The functional pattern of language use may conflict in the classroom. The responses valued by the school may be inhibited by the child norms of language use (Labov,1969 ; Goodman, 1969).

This divergence of opinion concerning the completeness and adequacy of Black English as a communication system reflects differences in conceptionalizations about language-as-a-system of communication, and the nature of the acquisition of that system. The "deficit" theorists are mainly psychologists and educators who view language as a set of verbal habits which are conditioned in the person in the same way as other motoric acts (Staats, 1970). The "difference" theorists are psychologists and lingusitis who view language as a set of rules whose acquisiton is guided by innate predisposition in the child. The "deficit" theorist extended the S-R model of behavior to language; the "difference" theory adopted the transformational generative model of grammar developed by Chomsky (1957, 1965).

Chomsky's transformational generative grammar is an attempt to provide a model of the speaker's competence (tacit knowledge that the speaker has about language) which enables him to produce (and understand) an infinite set of grammatical sentences and to avoid generating ungrammatical sentences. It represents a concise, formalized approach to language description, in addition to, a number of hypothesis about "human intellectual capabilities and their specific character" (1965).

Chomsky's theorization departed from the notions of traditional more behavioristically oriented investigations of grammar which focused exclusively on observable aspects of communication. Chomsky specified a related between external acoustic phenomenon and internalized thoughts, ideas, and intent. Transformational grammar made inferences about underlying structures and related them to observable aspects of language.

Grammar, as thus represented, is not a performance model for the speaker. It is not to be confused with what the speaker actually does. Grammar represents the speaker's underlying lingusitic ability. The model of speech production incorporates the language model as an important component, but has added psychological implications because it deals with the actual lingusitic behavior of the individual. This public lingusitic behavior is affected by memory limitations, attentional factors, situational variables, etc. Grammar is tacit knowledge; it is one of the underlying abilities which enables the speaker to behave linguistically. It does not specify what he actually does. This is the distinction Chomsky draws between linguistic competence (underlying knowledge) and performance (actual linguistic output).

Chomsky's (1957, 1965) theorizations about the nature of grammar, in addition to its tremendous impact on modern linguistics, influenced investigations and theorizations on language acquisition in children. He advanced hypotheses about the nature of the child's capabilities for language acquisition, and the manner of that acquisition. His analogy of the linguist describing the language and the child acquiring the language shows the similarity of the tasks.

> The problem for the linguist, as well as the child learning the language, is to determine from the data of performance the underlying system of rules that has been mastered by the speaker-hearer and that he puts to use in actual performance. (1965)

The theory of language acquisition offered by Chomsky (1964, 1965) was very much at variance with the viewpoints of traditional psychologist. The main point of divergence was the question of nativism. Chomsky and psychologists influenced by him (McNeill, 1966; Slobin, 1971) took the position that children are biologically preprogrammed for language learning. Further, they assumed that all languages share some of the same underlying structures and that the child's innate equipment corresponds with this structure in some way. The existence of language universals as part of the child's innate equipment is put forth to explain the rapidly of language acquisition, and the nature of that acquisition.

Most of the psychological theorization concerning language impoverishment assumes that the linguistic inputs to economically deprived children are in some ways inferior to the inputs of the middle-class child (Jensen, 1967). The assumption is that the mother of the deprived child was an inadequate language model since she had not completely mastered the "correct" way of speaking (Baratz and Baratz, 1970).

Recent data on language acquisition - utilizing the transformational generative model (Brown and Fraser, 1963; Braine, 1963; Slobin, 1970) - casts considerable doubt on this rather basic assumption. First, adults tend to shift toward simple, active, declarative sentences when addressing children. The alleged rich, complex, variegated forms attributed to the speech of the middle-class is not utilized in conversations with children. Second, in cultures where the primary language inputs to children is other children, there is no retardation in language acquisition. Complexity of language and adult forms of language do not seem to be requisites for normal language development. Finally, children do not attend to all of the details of adult speech. Language complexity and correctional products of parents are largely unsuccessful in stimulating the development of children's speech (Slobin, 1970).

A second related assumption of present psychological theorization is that the nature of the linguistic interaction between mother and child is qualitatively better for the middle class(Bernstein, 1961; Jensen, 1967). The nature of the linguistic interaction between mother and child in any class in America is not fully understood. More important, the effect of this interaction on language acquisition is not known. Two important questions emerge here. Is their a significant class difference in the pattern of language interaction? What effects does either type of interaction have on the develop of language.

The available studies of language acquisition have been conducted using either white English speaking, middle class children in the United States or children elsewhere who speak other languages e.g., German, Finnish, Luo, Russian, and Samoan (see Slobin, 1970). Although the cultural setting varied considerable the same pattern of syntactic development was found in the children.

Miller and Ervin (1964), Brown and Fraser (1963) and Braine (1963) conducted longitudinal investigations of the development of syntactic structures in children. These independent investigations influenced by Chomsky's (1957) model of grammar described the developemnt of syntactic structures in English speaking middle-class children. They all reported similar findings.

These children began to produce two-word utterances around eighteen months of age. The number of different two-word utterances increased over the next several months. These investigations revealed that these two-word utterances were not haphazardly conjoined. They were the combination of two different classes of words. The classes themselves were defined by "privilege of occurance." A small class of "pivot" words and a larger group of open class words were identified. Pivot words tended to be fixed in either a first or second position. The open class words (many of whom were previously one-word utternace) were not fixed. The utterances of the two-word stage consisted of pivot and open, open + pivot, or open + open. There were no pivot + pivot utterances. Braine (1963) identified allgone as a first position pivot and on as a second position pivot. He found utterances like all gone shoe and shoe on. Later, open-open constructions like man car are found where the words are not restricted to either first or second position.

Subsequently, investigations Braine (1970) Bloom (1970) suggested that the early notions offered to account for the two-word utterance were too simple. The fixity of the pivot words and the undifferentiation of the pivot and open classes were later questioned (Bowman, 1970). Bloom (1970) failed to find the pivot-open classes described by early investigation. She extended this type of investigation by taking context into consideration. She discovered that though the children's surface forms were simple two-word utterances, their underlying intention was much more complex. A number of relations - possession (daddy, hat) attribute (party hat), subject-locative (sweater chair) - were being expressed by the same surface forms.

With the emergence of the three-word stage, it was possible to identify hierarchical construction in the child's speech. On distributional grounds, a member of subunits were identified. The subunits of two-words have the same privilege of occurance as single words. For example, that (a factory) and (a horsie) stop occured latter in the speech of a child, than that factory and horsie stop (Brown and Bellugi, 1964).

Work on the emergence and evelopment of grammatical transformation was began by Bellugi (1968) and Brown (1968). Bellugi (1967) outlined three stages in the child acquisition of negation. The first stage was a simple attachment of a negative element to an utterance. For example, Bellugi reported the following examples: No mitten, no sit there, Wear mitten no. In the second stage, new forms appear with the old. The child attached (or inserts) the negated auxiliaries can't and don't to his sentences. Constructions like, I don't want it and don't leave me, appeared. The negator can't and don't are not contractions of can not and do not. The words, do and can have not occurred as auxiliaries in the speech of the child. The form why not + negative sentence also occurred.

The third stage of negation revealed some sentences which were similar to adult constructions e.g. Paul can't have one. It also showed negated questions which were similar to adult form except for the inversion of pronoun and auxiliary e.g. why he can't play with it. The uses of pronoun and indefinite determines appear at this stage e.g. I don't see something.

In the fourth stage, more of the construction corresponds to adult usage. There are, however, many deviations. A different type of double negative from the stage II version appear. They involved the use of negative indifinite pronouns and determines, e.g. I never had no turn. He can't have nothing.

Brown (1968) reported on the development of question transformation of child and the constructional techniques of parents which may influence the formation of these construction. He investigated the transition of one child's question from a simple learned routine "what day?" to a more sophisticated, but still unadult-like forms. At this latter stage construction like "what you want?" and "How you open it" and "What his name" appeared. Latter constructions offered evidence for a "preposing" transformation.

Data was collected on the speech of lower class Black children in Oakland, California, but was only sparsely reported in the literature (Mitchell-Kernan, 1969). To date, little information (but much speculation) is known about the development of linguistic patterns in Black children. Investigations into the interactional patterns in lower class Black homes and the emergent patterns of linguistic structures would have theoretical and practical value.

Labov (1968) investigated the structure of non-standard Black English in pre-teens and teenagers in New York City. He found, for example, that the question and negation constructions to be different from the white standard and non-standard forms. He also analyzed the verb system of these speakers. He found a main verb be which is peculiar to this English dialect e.g., he be gone. He also found differences in the operations of phonological rules which produced unique construction in teenagers e.g. He gone. Again, the developmental sequences of these rules is not known. Other points of departure from non-standard were noted in the use of modals.

These speakers were very poor in their reading and scholastic achievement. Though, there was a rough correlation between dialect form and school achievement the evidence for a direct relation could not be made from the data. Second, the development pattern of these speakers is also not available. Third, the range of linguistic abilities of these speakers is only partially known.

Other investigations of Black English have dealt with functional aspects of this speech (Labov, 1968; Mitchel-Kernan, 1969; Kochmar, 1969). A number of speech acts - shucking, jiving, rapping, signifying, etc. - were identified, described, and analyzed. While this research has been valuable in pointing to the versatility of Black speakers and the cultural dimensions of such acts, the broader implications have not been drawn. The research needs to be expanded across a number of social contexts to determine the capabilities of this population in code-switching. Labov (1965) found that all New Yorkers, regardless of class and ethnicity , tended to articular the r in words like four. Though the pattern of articulation across "contexts" was similar, the frequency of articulation varied. This research suggests that all speakers commanded the ability to shift toward the preceived "standard" feature. How sensitive other linguistic variables are to change is still not fully known (see Wolfrom, 1969). The relation between code-switching and reading is an important area that has not been researched. Equally important, the development of code-switching abilities has been neglected.

Black English speaking children are handicapped in the school environment because of the asymmetry of their comprehension and production in standard English. They can understand the standard code, but their production of the standard fails to meet the school's expectations. Minority children of Mexican-American, Chinese, Puerto Rican, American Indian whose native tongue is a foreign language are often doublcy handicapped because their production and comprehension of the standard is considerably at variance with the school's expectations.

Many of these minority children come to school with a severely limited knowledge of and exposure to the English language. They range all of the way from the complete monolingual to those who are fairly balanced in their bilingualism. In most instances, the schools do not have adequate programs for children who speak little or no English. The schools and their personnel shun the usage of other languages in the classroom, (see Michel, 1969).

They are often placed in the same classroom with native English speaking children, and instruction is provided which requires that these children have mastered English to the same degree as their English speaking age-mates. The curriculum is not modified to account for their cultural differences. In other instances, they are placed in classes for the mentally retarded. Either way, the consequences are a high rate of failure for these children.

The curriculum must be tailored to meet the needs of these children. Present instruction is resulting in depressed learning opportunities. Obviously, the teachers need to be in command of techniques and materials which assess these children's knowledge of English and maximize the elicitation of speech in the classroom. This information, along with the help of bilingual children and parents, can be utilized to expand and develop the verbal abilities of these children.

Proposal for Developing Communicative Competence in Minority Children

The objectives of work in this area are to provide educators with (a) an alternative perception of problems encountered by non-middle-class English speakers; (b) a basic approach or strategy for stimulating linguistic development; (c) materials and techniques for use in the classroom, and (d) an achievement/diagnostic test of production competencies.

Work in this area will be organized into the following phases:

Phase I:	Develop Materials for Teachers of Children Whose Home Language Is Other Than "Standard" English
Phase II:	Develop a Unit on Language and Dialect for Early Primary Children
Phase III:	Conduct Feasibility Study for Assessing Bilingual Competence
Phase IV:	Develop Learning Episodes and Materials for Increasing Sociolinguistic Competence
Phase V:	Develop a Technique for Assessing Sociolinguistic Performance Capability in a Given Situation
Phase VI:	Dissemination and Utilization Study

Phase I: Develop Materials for Teachers of Children Whose Home Language is Other than "Standard" English. It is very important to develop materials which will help teachers (a) accept the pattern of speech of a child as valid, and (b) avoid negative evaluations of the child's different speech patterns. Work in this area will focus on developing:

1. Materials which describe and explain the varieties of spoken English, including regional and ethnic patterns;
2. Materials which discuss the fallacies in attitudes toward and perceptions of various dialects; and

3. A set of exercises which can be used to demonstrate the integrity and consistency within the various dialects.

Norms operating in the classroom determine who speaks, when, to whom, in what manner ("standard" English), and on what subject. These norms may present conflicts for students who do not have the communicative competence to conform to the expectations of the teachers. Such norms may also present problems for teachers who are not familiar with the speech varieties of the children nor the norms which govern their speech production. It is important, therefore, to familiarize teachers with the characteristics of the students' speech codes and to give teachers practice in comprehending and resolving problems which originate from conflicting patterns of speech.

Teachers will be given detailed descriptions of the dialects that the children bring into the classroom. They will be alerted to points of contrast between the dialect and the standard. Areas of difficulty (interference) will also be identified. The fallacies and myths about the logical, psychological, and linguistics impoverishments of various dialects will be challenged. Evidence of the linguistic competence of these children will be illustrated.

Program staff will develop videotapes of ethnic minority children using their natural speech patterns and codes in settings which are familiar to them. Transcriptions of the conversations will be prepared for teachers who have extreme difficulty in comprehending these videotapes. These videotapes will be used by teachers in assessing their own comprehension and in gaining practice in understanding patterns of speech different from their own.

In addition, the staff will develop a series of videotapes which contain instances of cultural conflict expressed in language within the classroom. Emphasis will be placed on discussing alternative strategies and rationale for assisting children in conflict resolution.

Phase II: Develop Unit on Language and Dialect for Early Primary Children. As a result of exposure to current myths which view languages and dialects from a narrow framework, children's perceptions of language and dialect differences often parallel those of adults. A minority child who is being negatively evaluated because of his language patterns may believe that the teacher's negative evaluation is indeed justified. Yet, dialect and (foreign) language varieties represented within the classroom can be used as a source for providing children with another perspective and understanding of language, and language variations.

A unit on language and dialect variation will be developed around a library of tape recordings of speech samples from various dialects and foreign languages. The unit will be developed for use in the primary classroom to increase the child's appreciation of the patterns within his language or dialect.

Phase III: Feasibility Study for Assessing Bilingual Competence. Strategies for developing sociolinguistic competence in the school depend upon the child's knowledge of some dialect of English. For children whose primary language is other than English, it is necessary to assess their bilingual competence and perhaps to provide instruction in English as a second language before these children are able to profit from classroom instruction. The extent of bilingualism among children from the same neighborhood may vary considerably depending upon language usage in the home, exposure to television, and experiences outside of the home.

A study of the feasibility of assessing bilingual competence will be conducted with special emphasis given to evaluating language development in a natural setting. Techniques for assessing the productive and receptive competence in both languages will be utilized. Sentence completion and sentence immitation techniques are already available. Vocabulary norms for various minority populations will soon be available.

Phase IV: Develop Learning Episodes and Materials for Increasing Sociolinguistic Competence. The norms of the classroom often inhibit the development of productive sociolinguistic competence in non-middle-class children (see Hymes, 1970). The unrealistic expectation that these children express themselves in the middle-class code, and the negative feedback they receive from speaking their own code inhibit the development of appropriate styles of expression. The children need more opportunity to acquire and practice alternative styles.

It appears to be necessary to develop strategies for restructuring the social environment in the school in order to provide opportunities for children to practice other styles of expression. Although the exact nature of the necessary restructuring is not known at this time, it is expected that work in Phases I and II will indicate the crucial social variables that influence styles of speaking. Results of Phases I and II will be incorporated into general guide for teachers that will identify the crucial variables and suggest alternative means of dealing with them in the classroom.

Phase V: Develop a Technique for Assessing Sociolinguistic Performance Capability in a Given Situation. Children's productive language capacity can be stimulated by exposure to a variety of sociolinguistic situations in which the usual classroom norms are relaxed (see Hymes, 1970 and Stewart, 1970). As a child develops in sociolinguistic competence, he should be able to perform in a greater number of situations.

In constructing an achievement/diagnostic test, a task has been selected--that of paraphrasing a story (originally told in middle-class dialect) with children and with one or more adults--which contains elements similar to many school situations. Performance in the two situations (with other children and with an adult) will be used as an indicator of sociolinguistic competence.

Criteria used to measure level of competence will be: (a) number of indications of culture conflict, (b) number of story elements included in the rephrased version, and (c) number of questions about the story correctly answered. Criterion =1 indicates the presence of unresolved culture conflicts in production while criteria =2 and =3 indicate comprehension level.

A preliminary test of the procedure will be conducted with a small sample; the stories and situations will be modified and retested as necessary. If the procedure appears feasible as a means of testing sociolinguistic competency, the task will be expanded into a more complex measure and further developmental work will be completed.

Phase VI: Dissemination and Utilization Study. Work in this phase will be undertaken as part of the Application and Utilization Component, discussed on pages 100 through 105.

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APPENDIX G

PERSONNEL RESUMES OF STAFF

Name: James A. Johnson, Jr.
Present Title: Associate Laboratory Director--Program Area Division IV
Education:
  Institution: University of California at Irvine. 1969 to present
  Major Field: Psychology
  Degree: Doctoral Candidate

  Institution: City University of New York. 1964
  Major Field: Mental Retardation
  Degree: MA (Equivalent)

  Institution: City University of New York. 1961
  Major Field: Education
  Degree: BA

Experience:

Far West Laboratory for Educational Research and Development 1971 - 1972
Associate Laboratory Director, Division IV
Berkeley, California

Far West Laboratory for Educational Research and Development, 1970 - 1971
Director, Multi-Ethnic Educational Program
Berkeley, California

Far West Laboratory for Educational Research and Development, 1970
Coordinator of System Development,
Education Beginning at Age Three Program
Berkeley, California

Far West Laboratory for Educational Research and Development, 1969 - 1970
Program Representative
Education Beginning at Age Three Program
Berkeley, California

Office of Economic Opportunity, 1968 - 1969
Special Assistant to Director of Head Start
Washington, D. C.

The Teachers' Inc., 1968
Coordinator of Curriculum Development and Instruction
New York City

Community Participation Educational Program, 1967 - 1968
Program Coordinator
New York City

New York City Board of Education, 1960 - 1967
Teacher
New York City

West Side Action Committee for Good Schools, 1968
Consultant
New York City

James A. Johnson, Jr.

Professional Affiliations:

Member AAMD, 1962 - 1964
Member UFT, 1963 - 1966
(Elected Chapter Chairman, 1964 - 1965
Elected Chapter Vice Chairman, 1965 - 1966).

Honors:

Intern
Washington Internships in Education, 1968 - 1969

James A. Johnson, Jr.

City Wide Coordinating Committee, 1967 (Summer)
Area Supervisor (Brooklyn and Lower East Side)
New York City

Negro Action Group (NAG), 1965 (Summer)
Project Director
New York City

Brownsville Community Council, 1964 - 1965
Consultant
Brooklyn, New York

Stuyford Action Council, 1963 - 1965
Consultant
Brooklyn, New York

Publications:

Johnson, J. A., Jr.; Clement, D.; and Lee, B.; Inconsistencies Between the Home and School Environments of Low-Income Black Children: A Pilot Study; Far West Laboratory for Educational Research and Development, March, 1972.

Johnson, J. A., Jr., and Johnson, P. A.; Toward Achieving Appropriate Learning Environments for Young Black Children: A Statement of Need; Far West Laboratory for Educational Research and Development, July, 1971.

Johnson, J. A., Jr.; Clement, C.; and Taylor, C.; Implication for Perceived Locus of Control of Reinforcements: Research for Educational Planning; Far West Laboratory for Educational Research and Development, June, 1971.

Johnson, J. A., Jr.; and Johnson, P. A.; "Alternative Futures for Social Studies and Social Science Education: A Statement of Need for a Black Perspective," The Social Science Record, Vol. VII, No. 3, Spring, 1971.

Johnson, J. A., Jr., "Public Schooling in the Black Ghetto," Clarement Reading Conference Yearbook; Claremont Graduate School, Clarement, California, 1970, pp. 56-67.

Johnson, J. A., Jr. and Nimnicht, G. P.; Who Are the Children We Are Working With? Far West Laboratory for Educational Research and Development, September, 1970.

Johnson, J. A., Jr.; Gaining Insight into Some Effects of Encounters of Black People with American Culture, Far West Laboratory for Educational Research and Development, August, 1970.

Johnson, J. A., Jr.; "The Parent Implemented Model," Follow Through's New Approaches for Young Children, Paper read to Follow Through Conference Sponsored by the Federal Programs Division, Arkansas State Department of Education, May 9, 1969, Little Rock, Arkansas.

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Berkeley, Ca. 94703

PRESENT POSITION	DATES	RESPONSIBILITIES
Deputy Director MULTI-ETHNIC EDUCATION PROGRAM Far West Laboratory for Educational Research and Development	10/70 thru Present	Assist in the direction of program to develop social studies units on Black, Chicano, Asian, and Navajo people. Coordinate the work of the Multi-Ethnic Education/Education Beginning At Age Three programs in Head Start and Follow Through parent involvement activities in communities utilizing the Responsive Environment model.
Consultant VOLT INFORMATION SERVICES	1968 thru Present	Consult with Head Start Directors regarding classroom program and parent involvement. Conduct training sessions for Head Start staff members.
Assistant to Director EDUCATION BEGINNING AT AGE THREE Far West Laboratory for Educational Research and Development	12/69 thru 10/70	Work with the Program Director on development of long range plans for program components and staff. Primarily responsible for developing and implementing techniques for Black and Spanish parents of Head Start and Follow Through children to have greater control over the education of their children.
Program Coordinator PARENT/CHILD EDUCATION COMPONENT	3/69 thru 12/69	Helped develop and administer the Parent/Child-Toy Library Program funded by Carneigie Foundation. This program is focused on parents of pre-school children who are over the income limit for Head Start but unable to afford private nursery school. A course for parents that meets two hours a week for 10 days has been developed. During each class meeting, parents are introduced to a toy and given written instructions about games to play with their children utilizing this specific toy. Aditionally, parents are encouraged to participate in discussions concerning various aspects of child development. At some of the meetings, parents are requested to try certain specific behaviors

	DATES	RESPONSIBILITIES
		during the week with their child, i.e., each day making a positive statement to the child about himself (enhancing the child's self-image), or answering the child in complete sentences (encouraging language development). At the completion of the 10 week class, parents will be encouraged to make regular use of the Educational Toy Library. Toy libraries are being set up in East Palo Alto, West Oakland, and Berkeley. Parents will be invited to check out toys with instructions for games of various levels of complexity. Books and other educationally related materials may also be available. In the Spring of 1970, we will select preliminary field test sites in order to evaluate the effectiveness of our approach to increasing the quality of parent-child interaction.
Program Advisor HEAD START Far West Laboratory for Educational Research and Development	9/68 thru 5/69	Conducted weekly seminar for Oakland Head Start teachers and teacher aides under the auspices of San Francisco State College. Seminars were centered around the techniques for implementing the Responsive Environment Model in the Head Start classrooms. Topics included development of positive self-image, cognitive learning, techniques for parent participation and parent involvement, room arrangement, etc. Demonstrated, observed and consulted for three hours in each classroom every other week. Used videotape recorder for instructional purposes. Consulted bi-weekly with Head Start Coordinator.
Assistant Director HEALTH CAREERS PROGRAM Albert Einstein College of Medicine Lincoln Hospital 333 Southern Boulevard Bronz, New York 10454	10/66 thru 9/68	Participated in the preparation of proposals for total education sequence in health careers from the aide level through the B.S. degree. These proposals are directed at both private and public funding sources.

	DATES	RESPONSIBILITIES
		Acted as research coordinator for funded project dealing with research on health manpower and curriculum design. Assisted the project director in the performance of his various duties including conference presentations and negotiations relating to funding, certification, licensure and accreditation. Evaluated various models of career escalation, community participation and education for the disadvantaged. Functioned as project administrator which included personnel selection and budget supervision.
Head Start Parent Coordinator HARYOU-ACT, INC. 2092 - 7th Avenue New York, New York	9/65 thru 10/66	Coordinator of the Family Service Unit of the Head Start Program. This included actual development of the purposes and functions of the unit. In an aggressive reaching-out manner, we organized and implemented a program offering concrete services to families, advocates with various agencies and institutions. The position included the following duries: 1. Determining referral procedures; 2. Planning and writing proposals for parent programs; 3. Training assistants and aides; 4. Supervising workers; 5. Extensive contacts in the community and outside of the community; 6. Development of training materials; 7. Interviewing prospective employees; 8. Liaison between this unit and the teaching unit.
Youth Parole Worker NEW YORK STATE TRAINING SCHOOL FOR GIRLS 377 Broadway New York, New York	12/64 thru 8/65	Gave casework services to delinquent adolescent girls and their families.
Caseworker GRAHAM HOME FOR CHILDREN 1 South Broadway Hastings-on Hudson, N. Y.	1/64 thru 12/64	Gave casework services to dependent and neglected children and their families.

EDUCATION:

University of California, Berkeley, California

M. A. Degree - Major: Education -- Specialization: Sociology of Education in Africa and Black America

B. A. Degree - Major: Criminology   Minor: Psychology

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PRESENT POSITION	DATES	RESPONSIBILITIES
Sr. Program Assistant Multi-Ethnic Education Program Far West Laboratory for Educational Research and Development	10/70 thru Present	Team Leader, Product Development Team Co-author of: -Basic Program Plan -Teacher Monograph -Social Studies slide series Slide-tape introduction to Multi-Ethnic Program author, photographer, graphics artist.
Film Writer-Director Consultant to Teacher Education Far West Laboratory for Educational Research and Development		Co-writer and co-director of film on classroom content for use in improving teacher-student rapport.
Research Assistant University of Massachusetts School of Education Amherst, Massachusetts	1968 thru 1970	Assisted in teaching a course in film-making. Assisted in design of International Education Program.
Director, Peace Corps Training Program for Malaysia, University of Hawaii Hilo, Hawaii	1967	Responsible for the planning and operation of a course for 75 American Peace Corps Volunteers en route to Malaysia. The school is located in rural Hawaii and was staffed by 7 Americans and 10 Malaysians.
Instructor Peace Corps Training Programs for Malaysia, Korea, Fiji.	1966 thru 1967	Instructor in area studies: human relations, political history, cultural understanding.
Peace Corps Volunteer Kanowit Secondary School Sarawaks	1963 thru 1965	Secondary teacher in rural school. Taught Agricultural Science, English, Art, Geography.
Private Tutor Mallorca, Spain	1968	Tutor in English language.

EDUCATION

Doctoral Candidate: International Education Media Anthropology	1968-1970	University of Massachusetts School of Education Amherst, Massachusetts
M.A., Asian Studies:	1967	University of Hawaii East West Center Honolulu, Hawaii
BFA Art and Theater Arts	1960	University of Utah Salt Lake City, Utah State University of Iowa Iowa City, Iowa
University of Freiburg Freiburg i. Breisgau, W. Germany	1970	Anthropology, summer session
Goethe Institut Deggerndorf W. Germany	1968	German Language Study.

FELLOWSHIPS

Fellow of International Education 1968-1970
School of Education, University
of Massachusetts

Grantee of Institut für Atlantische 1970
Studien, Freiburg, Germany

East-West Center Grantee 1966-1967
University of Hawaii
Honolulu, Hawaii

PUBLICATIONS

1971 - "Teacher Monograph", with James A. Johnson, Jr. and Betty Ng. Far West Laboratory for Educational Research and Development, Berkeley, California.

1971 - "Competing Frames of Reference" with James A. Johnson, Jr., and Francine Lewis. Far West Laboratory for Educational Research and Development, Berkeley, California.

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826 59th Street
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PRESENT POSITION	DATES	RESPONSIBILITIES
Program Assistant MULTI-ETHNIC EDUCATION PROGRAM Far West Laboratory for Educational Research and Development	10/71 thru Present	Supervise Planning and Application team. Assist in work of the Multi-Ethnic Education/Education Beginning at Age Three Programs in Head Start and Follow Through parent involvement activities in communities utilizes the Responsive Environment Model.
Research Intern III EDUCATION BEGINNING AT AGE THREE Far West Laboratory for Educational Research and Development	9/70 thru 10/71	Worked in Parent Involvement Component. Helped set up and conduct workshops for Head Start parents and Follow-Through parent coordinators. Made three (3) day visits to Follow Through Programs in Washington, Utah, Wisconsin, Minnesota, and Ohio. I assisted in bringing about more parent involvement in programs in these areas. Assisted the Multi-Ethnic Education Program in developing its community involvement component.
Research Intern I MULTI-ETHNIC EDUCATION PROGRAM Far West Laboratory for Educational Research and Development	12/69 thru 8/70	Major task consisted of literature research to aid in writing basic program plans. Additional work included school and educational programs to see what work in our field was being attempted locally, writing a community version of Basic Program Plans, assisting in developing a critiquing instrument to help teachers better select Multi-Ethnic curriculum materials and compiling a report on all activities inside Far West Laboratory related to Multi-Ethnic Education.

PRESENT POSITION	DATES	RESPONSIBILITIES
Student SONOMA STATE COLLEGE	2/67 thru 1/70	I served as BSU (Black Students Union) Chairman, Atheletic commissioner, "Hidden Talent" Advisory Board Member and Ethnic Studies development committee member "Hidden Talent," is similar to Educational Opportunity programs. I assisted in selection of students for the program and also served as a counselor for the program. I represented the Black Student population at Sonoma while serving on the Ethnic Studies Development Committee. The committee was charged with the responsibility of developing an Ethnic Studies Division for Sonoma State College.

EDUCATION:

Contra Costa Jr. College, Richmond, California

Major: Art
1967

Sonoma State College, Sonoma California
Major: Psychology
1970

San Francisco State College, San Francisco, California
Major: Educational Administration (D.D. & E.)
1971 - Present

Betty Ng
1760 Walnut Street
Berkeley, California 94709

PRESENT POSITION	DATES	RESPONSIBILITIES
Program Assistant II Multi-Ethnic Education Program Far West Laboratory for Educational Research and Development	2/71 thru Present	Develop social studies units on Black, Asian, Chicano and Navajo people. Field-test units. Research in communities.
Lecturer and Extension Instructor University of California Berkeley, California	1967 thru 1971	Taught elementary curriculum courses, such as social sciences, education, art education, and Trends in Elementary curriculum.
Curriculum Developer Educational Programming of Cultural Heritage Berkeley Unified School District	1966 thru 1967	Developed multi-cultural materials such as Asian Culture and Art.
Research Assistant Social Sciences Curriculum Project University of California Berkeley, California	1964 thru 1966	Developed curriculum materials on Asian Cultures.
Elementary Teacher Vancouver Unified School District Canada	1962 thru 1964	Taught 5th and 6th grades
Research and Teaching Assistant University of British Columbia, Canada	1960 thru 1962	Helped manage Child Art Research and Demonstration Center, and taught Art Appreciation: Comparison between Oriental Art and Western Art.

EDUCATION

M.A. - Univeristy of British Columbia, Canada, 1962.
(Elementary Education and Art)

Ed. D. - University of California, Berkeley, 1966.
(Elementary Curriculum)

PROFESSIONAL AFFILIATIONS

Member of National Council for the Social Studies, Washington, D.C.

Member of Chinese Historical Society in America, San Francisco, California.

Horace Spencer
1842 38th Avenue
Oakland, California

PRESENT POSITION	DATES	RESPONSIBILITIES
Program Assistant	1968 thru Present	Review curriculum for Indian studies, give lectures on Navajo culture and language for classes at the University of California, Berkeley; Sonoma State College, Hayward; State colleges in the Los Angeles area, and others locally.
Student	1967 thru 1968	University of California, Berkeley, California
Assistant in Native American Studies Far West Laboratory for Educational Research and Development	1966 thru 1967	Research on State Colleges, Junior Colleges and Universities in regard to Native Americans in higher education.
Warehouseman Carnation Company Oakland, California	1964 thru 1966	Filled shipping orders for wholesale customers.
American Indian Center San Francisco, California	1962 thru 1964	Supervised all staff members and volunteers. Involved in housing, employment and urban problems facing the American Indians coming into the San Francisco vicinity. In charge of all public relations. Counselled client participants in medical, dental, vision care, job referrals and training courses, temporary and permanent housing, financial planning, family counselling, continuing education and home management.
Instrument Man Utah Construction Company Farmington, New Mexico	1959 thru 1962	Set up survey instruments, did land surveying, supervised crew of up to eight men, diagrammed survey maps.

	DATES	RESPONSIBILITIES
Medical Social Worker United States Public Health Service Indian Sanitarium Albuquerque, New Mexico	1957 thru 1959	Case work for patients, e.g., interpret for patients, transport patients, etc.
Social Worker State of New Mexico Albuquerque, New Mexico	1951 thru 1956	Did all case work including referrals for aid to crippled children, blind persons, disabbled, etc.
Aviation Electronics Mate, Second Class United States Navy	1950 thru 1951	Prisoner-of-War during the last three months. Received Honorable Discharge, April 4, 1951.
Ordinance Man Second Class United States Navy	1943 thru 1946	During World War II (Remained in U.S. Naval Reserve until called back at a later date.)

EDUCATION:

University of California, Berkeley, California
B.A. Degree - Major: Education (1968)

Riverside Jr. College, Riverside, California
A.A. Degree - Major: Engineering

PROFESSIONAL AFFILIATIONS:

Developed through Far West Laboratory, Mr. Spencer originated the cultural and tutorial studies for American Indian children, ages 6 to 12, at Jefferson Elementary School, Oakland. He now directs the activities on a volunteer basis, with the assistance of 15 undergraduates from Stanford University and the backing of parents.

Member of the Board of Directors of the United Native Americans, San Francisco, California.

Member of the Board of Directors of Casa Del Buen Samaritano Fundacion, Oakland, California.

Member of National Teachers (ATT) in New York (through Far West Laboratory).

Member of American Indian Council, Inc.

James W. McGinnis
1927 Dwight Way #210
Berkeley, California 94704

PRESENT POSITION	DATES	RESPONSIBILITIES
Consultant MULTI-ETHNIC EDUCATION PROGRAM Far West Laboratory for Educational Research and Development	3/71 thru Present	Consult and assist in the development of research designs to field test education products. Development of theoretical model, instrumentation, and research design for study of communicative competence in minority pupils.
Instructor DEPT OF AFRO-AMERICAN STUDIES University of California, Berkeley	1/71 thru Present	Teaching and counseling students in the department. Courses taught in the areas of History of Psychology and Socio-linguistics.
Research Associate DEPT OF GUIDANCE Teachers College, Columbia University	6/69 thru 9/70	Assist in the design of the study of Collegiate Compensatory Programs for Minority Group Youths. Supervisor of data collection.
Assistant Director of Examiniations EXAMINATIONS PROGRAM College Entrance Examination Board, New York City	9/67 thru 6/69	Assist in administration of College entrance testing program: administration, development, and construction of S.A.T. and achievement tests. Architect of national fee waiver program for minority students. Administrators of P.S.A.T. program.
Psychologist DEPT OF PSYCHIATRY Harlem Hospital New York, N. Y.	9/66 thru 6/67	Conducted group therapy for out-patients in experimental program. Consultion on experimental design of program.
Fellow PROJECT BEACON Mobilization for Youth New York, N. Y.	9/65 thru 6/66	Assist in tutorial program for minority youth in special collegiate program.
Research Assistant YOUTH OPPORTUNITIES CENTER San Francisco, California	9/64 thru 9/65	Assist in data collection and instrumentation of research for Center program. Areas of interest were soical characteristics, education, and unemployment of youth.

EDUCATION:

Present: Doctorial Candidate, Yeshiva University, New York City (Educational Psychology - Dissertation in Progress).

1965: M.A. San Francisco State College (Psychology) Junior College Teaching Credential (Psychology - Biology).

1963: B.A. Wayne State University, Detroit, Michigan (Psychology).

Name: Dorothy C. Clement

Present Title: Educational and Research Consultant
Berkeley, California
Doctoral Candidate, School of Social Sciences
University of California, Irvine

Education:

Institution: University of California at Irvine
Major Field: School of Social Sciences
Degree: Doctoral Candidate

Institution: University of North Carolina 1969
Major Field: Anthropology Thesis: "Shango: A Modernizing Cult in Trinidadian Society"
Degree: MA

Institution: East Carolina University 1966
Major Field: Mathematics
Degree: BA magna cum laude

Experience:

Oakland Public Schools 1971-72
Consultant - Readability Study for Student Counselor Aide Program
Oakland, California

University of Hartford, Equal Education Institute 1971
Continuing Consultant
Hartford, Connecticut

Iowa State Department of Public Instruction 1971
Research Consultant
Des Moines, Iowa

Stefflre Associates, Incorporated 1971
Study Director - Two part study of user perceptions and large scale preference sample for a California pre-school chain
Laguna Beach, California

Entrepreneurial Experiments, Incorporated 1971
Data Collection Supervisor (temporary basis)
Laguna Beach, California

Far West Laboratories for Educational Research and Development, Multi-Ethnic Education Program 1970 to present
Consultant on the following projects: Cultural Appropriateness Symposium; Locus of Control over Reinforcements; Home-school Environmental Differences; Readability
Berkeley, California

Follow Through Program 1970-71
Volt General Consultant
Zuni, New Mexico

Public Health Service Training Grant for graduate study, (University of California, Irvine) 1969-71

Ixil Ethnographic Research Project 1968
Research Assistant to B. N. Colby, Ph.D., Director
Nebaj, Department of Quiche, Guatemala

NDEA Title IV Fellowship (University of North Carolina, Chapel Hill) 1967-69

Public Health Service Training Grant for Anthropological research in Trinidad, West Indies 1967

First Year University Fellowship (University of North Carolina, Chapel Hill) 1966-67

Eastern North Carolina Research and Development Institute 1965
Systems Analyst and Programmer
Greenville, North Carolina

Publications:

"Inconsistencies Between the Home and School Environments of Low-Income Ethnic Minority Children: A Preliminary Draft." Far West Laboratory for Educational Research and Development, Berkeley, California. (With Jim Johnson and Barbara Lee) 1972

"Folk Narrative." In Current Trends in Linguistics, Volume 12, Thomas A. Sebeok (ed.), The Hague: Mouton and Co. (with B.N. Colby) 1972

"A Modernizing Cult in a Developing Nation: the Shango Cult in Trinidad." In Symposium on Caribbean Cults, Joan D. Koss (ed.), to be published by the Institute of Caribbean Studies 1972

"Implications of Perceived Locus of Control of Reinforcements: Research for Educational Planning." Far West Laboratory for Educational Planning." (With Jim Johnson and Christina Taylor) 1971

"Cultural Appropriateness Symposium: CULAS A Procedure for Evaluating Educational Material, Pilot Symposium Design" Co-authored with Jim Johnson. Far West Laboratory for Educational Research and Development, Berkeley, California 1970

Name: Joe R. Harding
Present Title: Director, Public Policy Research and Planning Group
Education:
Institution: University of California, Irvine
Major Field: School of Social Sciences
Degree: Doctoral Candidate (Expected in June, 1972)

Institution: University of Michigan 1964-66
Major Field: Sociology

Institution: University of Iowa 1964
Major Field: Sociology, Psychology
Minor Field: Religion
Degree: BA

Experience:
21C Corporation 1972 to present
Director, Public Policy Research and Planning Group

Far West Laboratory for Educational Research and Development 1971 to present
Consultant, Utilization Program
Berkeley, California Marketing Studies (printed reports available) on
Minicourse I and Management Training Units

University of Hartford 1971
Consultant
Hartford, Connecticut

Iowa State Department of Public Instruction 1970-71
Consultant
Iowa

Far West Laboratory for Educational Research and Development 1970-71
Consultant, Multi-Ethnic Education Program
Berkeley, California

Stefflre Associates, Incorporated 1970
for New Product Development accounts with: 1) General Foods Corporation,
2) Scott Paper Company, and 3) Phillip Morris Company
Account Manager

Stefflre Associates, Incorporated 1970
Member, Board of Directors
Laguna Beach, California

Stefflre Associates, Incorporated; Market Structure Studies 1966-70
Consultant
New York; Laguna Beach; California

University of California, Irvine 1966-70
Teaching Assistant, School of Social Sciences
Introduction to Social Science, Introduction to Sociology; Introduction to Anthropology; Advanced Social Sciences; Advanced Anthropology; Language and Behavior; Social Science "Experience" courses

University of Michigan 1966
Teaching Fellow: Introduction to Psychology, Department of Psychology

University of Michigan 1965-66
Independent Computer Programming for Richard Mann, professor in Department of Psychology

University of Michigan 1965-66
Assistant Study Director (working under Charles Cannel and John Scott), Institute for Social Research

University of Michigan 1965-66
Research Assistant to Walter Reitman, Mental Health Research Institute

University of Michigan 1965
Research Assistant to Volney Stefflre, Mental Health Research Institute

University of Michigan 1964-65
Research Assistant to Morris Friedell, professor in Department of Sociology

University of Iowa 1964
Assistant to the Director, Iowa Urban Community Research Center

University of Iowa 1963-64
Computer Operator and Programmer (Computer Center)

University of Iowa 1963
Research Assistant to William Erbe, professor in Department of Sociology and Anthropology

University of Iowa 1962-63
Interviewer (Iowa Urban Community Research Center)

Publications:

"Parental Involvement in the Education of Their Children: Strategies for Planned Change" with James A. Johnson, Jr.
Far West Laboratory for Educational Research and Development
Berkeley, California 1971

"Multidimensional Scaling of Role Terms in an Ixil Mayan Community". Paper read at American Anthropological Association Meetings
New Orleans, 1969

"Review of Secular Salvations; The rites and symbols of political religions by Ernest B. Koenker", in Review of Religious Research, Winter 1969, vol. 10, no. 2, p. 119 1969a

"Some Techniques for Comparison of Normal and Schizophrenic Language", with John Tokar, M.D., and Volney Stefflre, in Schizophrenia and Thought, University of California Press (in press) 1968b

"Some Techniques for Studying the Concept of Power", unpublished independent research under the direction of James G. March, Social Sciences
University of California, Irvine 1968a

"The History and Development of the Sociology of Religion", unpublished senior paper, under Professor J. Richard Wilmeth. (Subsequently used as required reading in Sociology of Religion courses at the University of Iowa). University of Iowa 1964

Field Research:

Ticul, Yucatan, Mexico - September, 1965 with brief follow-up visits 1965-68

Nebaj, Department of Quiché, Guatemala, September, 1968, through August, 1969, May, 1970

Honors and Awards

Research Grant from Stefflre Associates, Incorporated for development of some research methods and computer programs (through Institute for Social Research, University of Michigan 1966)

U.S.P.H.S. Training Grant, Center for Research on Social Organization, University of Michigan 1964-65

Phi Beta Kappa - University of Iowa 1964

Most Promising Scholar Award - University of Iowa 1964

Old Gold Development Fund Scholarships - University of Iowa 1961 - 63

S.U.I. Merit Scholarship - University of Iowa 1960